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(21) International Application Number: PCT/US99/24205 (22) International Filing Date: 15 October 1999 (15.10.99) (30) Priority Data: 60/104,435 15 October 1998 (15.10.98) US (63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 60/104,435 (CIP) Filed on 15 October 1998 (15.10.98) (71) Applicant (for all designated States except US): GENETICS INSTITUTE, INC. [US/US]; 87 CambridgePark Drive, Cambridge, MA 02140 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): JACOBS, Kenneth [US/US]; 151 Beaumont Avenue, Newton, MA 02160 (US). MCCOY, John, M. [GB/US]; 56 Howard Street, Reading, MA 01867 (US). LaVALLIE, Edward, R. [US/US]; 113 Ann Lee Road, Harvard, MA 01451 (US). COLLINS-RACIE, Lisa, A. [US/US]; 124 School Street, Acton, MA 01720 (US). EVANS, Cheryl [GB/US]; 18801 Bent Willow Circle, Germantown, MD 20874 (US).		MERBERG, David [US/US]; 2 Orchard Drive, Acton, MA 01720 (US). TREACY, Maurice [IE/IE]; 12 Foxrock Court, Dublin 18 (IE). (74) Agent: SPRUNGER, Suzanne, A.; American Home Products Corporation, Patent & Trademark Dept. - 2B, One Campus Drive, Parsippany, NJ 07054 (US). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: SECRETED EXPRESSED SEQUENCE TAGS (sESTs) (57) Abstract Secreted expressed sequence tags (sESTs) isolated from a variety of human tissue sources are provided.		

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SECRETED EXPRESSED SEQUENCE TAGS (sESTs)

5

FIELD OF THE INVENTION

The present invention provides novel polynucleotides which are expressed sequence tags (ESTs) for secreted proteins.

BACKGROUND OF THE INVENTION

Gargantuan efforts have been employed by various investigational projects to randomly sequence portions of naturally-occurring cDNAs. The rationale behind this approach to identification and sequencing genes is founded in two basic principles: (1) that transcribed cDNAs represent the product of the most important genes, namely those that are actually expressed *in vivo*, and (2) that efforts to sequence genes and other portions of the genome of target organisms which are not actually expressed wastes substantial effort on areas not likely to yield genetic information of therapeutic importance. Thus, the high-throughput sequencing efforts focus on only those portions of the genome which are expressed. The randomly produced cDNA sequences represent "expressed sequence tags" or "ESTs", which identify and can be used as probes for the longer, full-length cDNA or genomic sequence from which they were transcribed.

Although this "shortcut" approach to genomic sequencing presents savings of effort compared to sequencing of the complete genome, it still produced a vast array of ESTs which may not be directly useful as protein therapeutics. To date, the majority of protein-related drug discovery has focused on the use of secreted proteins to produce a desired therapeutic effect. Since the EST approach theoretically identifies all expressed proteins, it produces an EST library which contains a mixture of secreted proteins (such as hormones, cytokines and receptors) and non-secreted proteins (such as, for example, metabolic enzymes and cellular structural proteins), without identifying which ESTs correspond to proteins falling into either category. As a result, these methods are not optimally tailored to the needs of investigators searching for secreted proteins because they must separate the secreted "wheat" from the non-secreted "chaff", wasting effort and resources in the process.

Co-assigned U.S. Patent No. 5,536,637, which is incorporated herein by reference, provides methods for focusing genomic sequencing efforts on sequences encoding the secreted proteins which are of most interest for identification of protein therapeutics. The '637 patent discloses a "signal sequence trap" which selectively identifies ESTs for secreted proteins, namely "secreted expressed sequence tags" or "sESTs". It is to these sESTs that the present invention is directed.

SUMMARY OF THE INVENTION

The present invention provides for sESTs isolated from a variety of human RNA/cDNA sources.

In preferred embodiments, the present invention provides an isolated
5 polynucleotide comprising a nucleotide sequence selected from the group consisting of:

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or a complement of said sequence.

In other embodiments, the present invention provides an isolated
polynucleotide consisting of a nucleotide sequence selected from the group consisting
10 of:

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or a complement of said sequence.

In further embodiments, the present invention provides an isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

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15 or a complement of said sequence.

In yet other embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

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or to a complement of said sequence.

20 The invention also provides for proteins encoded by the above-described
polynucleotides. In certain preferred embodiments, the polynucleotide is operably
linked to an expression control sequence. The invention also provides a host cell,
including bacterial, yeast, insect and mammalian cells, transformed with such
polynucleotide compositions. Also provided by the present invention are organisms
25 that have enhanced, reduced, or modified expression of the gene(s) corresponding
to the polynucleotide sequences disclosed herein.

Processes are also provided for producing a protein, which comprise:

- (a) growing a culture of the host cell transformed with such
polynucleotide compositions in a suitable culture medium; and
- 30 (b) purifying the protein from the culture.

The protein produced according to such methods is also provided by the present
invention.

Protein compositions of the present invention may further comprise a pharmaceutically acceptable carrier. Compositions comprising an antibody which specifically reacts with such protein are also provided by the present invention.

Methods are also provided for preventing, treating or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of a composition comprising a protein of the present invention, and/or a polynucleotide of the present invention, and a pharmaceutically acceptable carrier.

10

DETAILED DESCRIPTION

The nucleotide sequences of the sESTs of the present invention are reported in the Sequence Listing below. Table 2 lists the "Clone ID Nos." assigned by applicants to each SEQ ID NO: in the Sequence Listing.

15 Table 2

Each pair of entries in this table consists of the SEQ ID NO (e.g., 1, 2, etc.) followed by the Clone ID No. for such sequence (e.g., AA239, AA249, etc.).

	1	PP85	17	PQ98	33	PT138	49	PT212
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	3	PP95	19	PR24	35	PT144	51	PT215
	4	PP96	20	PR47	36	PT148	52	PT217
	5	PQ104	21	PR90	37	PT149	53	PT219
	6	PQ109	22	PS46	38	PT150	54	PT228
25	7	PQ114	23	PS48	39	PT159	55	PT230
	8	PQ12	24	PS51	40	PT16	56	PT233
	9	PQ134	25	PS59	41	PT171	57	PT249
	10	PQ15	26	PS66	42	PT179	58	PT259
	11	PQ28	27	PT109	43	PT184	59	PT26
30	12	PQ29	28	PT11	44	PT189	60	PT268
	13	PQ37	29	PT111	45	PT19	61	PT274
	14	PQ59	30	PT115	46	PT195	62	PT282
	15	PQ74	31	PT118	47	PT2	63	PT284
	16	PQ9	32	PT127	48	PT204	64	PT285

	65	PT293	99	PT398	133	PU164	167	PV110
	66	PT295	100	PT403	134	PU165	168	PV119
	67	PT296	101	PT409	135	PU169	169	PV126
	68	PT298	102	PT434	136	PU199	170	PV138
5	69	PT301	103	PT435	137	PU2	171	PV143
	70	PT307	104	PT437	138	PU214	172	PV149
	71	PT31	105	PT442	139	PU220	173	PV16
	72	PT310	106	PT444	140	PU226	174	PV163
	73	PT315	107	PT446	141	PU234	175	PV174
10	74	PT318	108	PT448	142	PU235	176	PV177
	75	PT324	109	PT449	143	PU237	177	PV183
	76	PT326	110	PT450	144	PU258	178	PV192
	77	PT328	111	PT451	145	PU26	179	PV193
	78	PT330	112	PT453	146	PU261	180	PV198
15	79	PT332	113	PT455	147	PU264	181	PV203
	80	PT334	114	PT457	148	PU274	182	PV205
	81	PT343	115	PT464	149	PU276	183	PV210
	82	PT346	116	PT57	150	PU280	184	PV213
	83	PT347	117	PT65	151	PU282	185	PV214
20	84	PT348	118	PT67	152	PU289	186	PV23
	85	PT35	119	PT71	153	PU291	187	PV231
	86	PT354	120	PT82	154	PU307	188	PV235
	87	PT355	121	PT97	155	PU312	189	PV269
	88	PT357	122	PU100	156	PU314	190	PV282
25	89	PT358	123	PU101	157	PU43	191	PV286
	90	PT364	124	PU107	158	PU56	192	PV291
	91	PT365	125	PU113	159	PU61	193	PV294
	92	PT367	126	PU116	160	PU71	194	PV296
	93	PT375	127	PU117	161	PU77	195	PV297
30	94	PT38	128	PU123	162	PU85	196	PV30
	95	PT381	129	PU124	163	PU86	197	PV306
	96	PT383	130	PU134	164	PU89	198	PV313
	97	PT385	131	PU139	165	PU96	199	PV316
	98	PT387	132	PU142	166	PV107	200	PV323

	201	PV327	235	PV663	269	PW344	303	PW50
	202	PV330	236	PV679	270	PW345	304	PW503
	203	PV339	237	PV70	271	PW356	305	PW504
	204	PV343	238	PV700	272	PW359	306	PW508
5	205	PV347	239	PV715	273	PW369	307	PW524
	206	PV35	240	PV72	274	PW370	308	PW528
	207	PV371	241	PV721	275	PW378	309	PW540
	208	PV383	242	PV725	276	PW381	310	PW567
	209	PV390	243	PW102	277	PW394	311	PW587
10	210	PV398	244	PW11	278	PW398	312	PW588
	211	PV439	245	PW114	279	PW4	313	PW60
	212	PV45	246	PW120	280	PW403	314	PW66
	213	PV472	247	PW123	281	PW410	315	PW73
	214	PV475	248	PW159	282	PW417	316	PW75
15	215	PV510	249	PW170	283	PW418	317	PW95
	216	PV511	250	PW186	284	PW422	318	PX100
	217	PV512	251	PW192	285	PW429	319	PX103
	218	PV53	252	PW195	286	PW430	320	PX115
	219	PV534	253	PW214	287	PW435	321	PX125
20	220	PV535	254	PW245	288	PW437	322	PX129
	221	PV548	255	PW26	289	PW445	323	PX135
	222	PV549	256	PW267	290	PW447	324	PX146
	223	PV560	257	PW269	291	PW448	325	PX151
	224	PV58	258	PW27	292	PW452	326	PX155
25	225	PV581	259	PW271	293	PW453	327	PX166
	226	PV585	260	PW288	294	PW459	328	PX169
	227	PV59	261	PW3	295	PW460	329	PX202
	228	PV6	262	PW303	296	PW463	330	PX207
	229	PV623	263	PW311	297	PW471	331	PX223
30	230	PV635	264	PW320	298	PW475	332	PX225
	231	PV64	265	PW328	299	PW482	333	PX51
	232	PV640	266	PW335	300	PW491	334	PX54
	233	PV65	267	PW337	301	PW496	335	PX60
	234	PV662	268	PW341	302	PW498	336	PX73

	337	PX75	371	PZ362	405	QB205	439	QB311
	338	PX94	372	PZ388	406	QB208	440	QB32
	339	PY10	373	Q13	407	QB211	441	QB326
	340	PY133	374	Q153	408	QB212	442	QB344
5	341	PY156	375	Q172	409	QB214	443	QB360
	342	PY16	376	Q303	410	QB216	444	QB370
	343	PY184	377	Q513	411	QB217	445	QB375
	344	PY187	378	Q66	412	QB22	446	QB379
	345	PY195	379	Q691	413	QB221	447	QB389
10	346	PY202	380	Q719	414	QB232	448	QB39
	347	PY215	381	Q725	415	QB235	449	QB393
	348	PY220	382	QA133	416	QB24	450	QB395
	349	PY239	383	QA136	417	QB241	451	QB397
	350	PY251	384	QB10	418	QB242	452	QB401
15	351	PY254	385	QB120	419	QB245	453	QB405
	352	PY256	386	QB122	420	QB246	454	QB44
	353	PY260	387	QB131	421	QB25	455	QB56
	354	PY27	388	QB132	422	QB251	456	QC109
	355	PY34	389	QB135	423	QB252	457	QC113
20	356	PY38	390	QB136	424	QB254	458	QC12
	357	PY39	391	QB146	425	QB257	459	QC126
	358	PY40	392	QB149	426	QB259	460	QC133
	359	PY46	393	QB152	427	QB26	461	QC146
	360	PY54	394	QB153	428	QB264	462	QC147
25	361	PY7	395	QB164	429	QB271	463	QC152
	362	PY9	396	QB165	430	QB280	464	QC156
	363	PY97	397	QB184	431	QB282	465	QC16
	364	PZ181	398	QB188	432	QB286	466	QC183
	365	PZ243	399	QB196	433	QB287	467	QC190
30	366	PZ300	400	QB199	434	QB289	468	QC199
	367	PZ311	401	QB2	435	QB299	469	QC215
	368	PZ313	402	QB20	436	QB300	470	QC221
	369	PZ331	403	QB200	437	QB301	471	QC226
	370	PZ355	404	QB203	438	QB307	472	QC228

	473	QC229	507	QC49	541	QD201	575	QF114
	474	QC243	508	QC496	542	QD210	576	QF116
	475	QC262	509	QC502	543	QD229	577	QF118
	476	QC265	510	QC506	544	QD242	578	QF121
5	477	QC280	511	QC51	545	QD251	579	QF122
	478	QC284	512	QC525	546	QD253	580	QF132
	479	QC297	513	QC534	547	QD275	581	QF139
	480	QC31	514	QC55	548	QD279	582	QF142
	481	QC333	515	QC556	549	QD285	583	QF147
10	482	QC337	516	QC575	550	QD286	584	QF151
	483	QC339	517	QC578	551	QD302	585	QF153
	484	QC365	518	QC584	552	QD310	586	QF16
	485	QC368	519	QC587	553	QD327	587	QF160
	486	QC380	520	QC59	554	QD328	588	QF161
15	487	QC384	521	QC61	555	QD351	589	QF167
	488	QC386	522	QC611	556	QD388	590	QF17
	489	QC416	523	QC613	557	QD402	591	QF170
	490	QC42	524	QC617	558	QD407	592	QF175
	491	QC432	525	QC63	559	QD421	593	QF199
20	492	QC434	526	QC632	560	QD454	594	QF2
	493	QC436	527	QC638	561	QD465	595	QF220
	494	QC438	528	QC646	562	QD491	596	QF224
	495	QC439	529	QC664	563	QD518	597	QF23
	496	QC443	530	QC668	564	QD89	598	QF233
25	497	QC452	531	QC671	565	QD97	599	QF241
	498	QC458	532	QC687	566	QE193	600	QF248
	499	QC462	533	QC690	567	QE272	601	QF259
	500	QC466	534	QC698	568	QE313	602	QF266
	501	QC467	535	QC708	569	QE357	603	QF276
30	502	QC478	536	QC84	570	QE424	604	QF278
	503	QC483	537	QD103	571	QF101	605	QF282
	504	QC485	538	QD111	572	QF103	606	QF286
	505	QC487	539	QD151	573	QF109	607	QF298
	506	QC488	540	QD159	574	QF110	608	QF303

	609	QF308	643	QF476	677	QF707	711	QG473
	610	QF317	644	QF497	678	QF714	712	QG492
	611	QF319	645	QF507	679	QF75	713	QG531
	612	QF320	646	QF511	680	QF76	714	QG537
5	613	QF327	647	QF513	681	QF93	715	QG542
	614	QF328	648	QF519	682	QF99	716	QG548
	615	QF331	649	QF526	683	QG107	717	QG570
	616	QF338	650	QF53	684	QG127	718	QG571
	617	QF35	651	QF530	685	QG137	719	QG576
10	618	QF359	652	QF539	686	QG170	720	QG577
	619	QF362	653	QF541	687	QG171	721	QG586
	620	QF363	654	QF542	688	QG175	722	QG591
	621	QF366	655	QF556	689	QG185	723	QG593
	622	QF373	656	QF559	690	QG325	724	QG596
15	623	QF375	657	QF56	691	QG342	725	QG619
	624	QF377	658	QF575	692	QG357	726	QG643
	625	QF383	659	QF582	693	QG361	727	QH160
	626	QF385	660	QF6	694	QG373	728	QH184
	627	QF388	661	QF619	695	QG376	729	QH209
20	628	QF393	662	QF620	696	QG378	730	QH211
	629	QF400	663	QF625	697	QG383	731	QH250
	630	QF401	664	QF631	698	QG389	732	QH30
	631	QF404	665	QF636	699	QG398	733	QH324
	632	QF43	666	QF644	700	QG428	734	QH417
25	633	QF442	667	QF65	701	QG433	735	QH48
	634	QF453	668	QF657	702	QG437	736	QH64
	635	QF454	669	QF662	703	QG443	737	QL104
	636	QF455	670	QF663	704	QG449	738	QL109
	637	QF459	671	QF675	705	QG459	739	QL118
30	638	QF46	672	QF679	706	QG465	740	QL125
	639	QF463	673	QF691	707	QG467	741	QL128
	640	QF464	674	QF696	708	QG469	742	QL129
	641	QF467	675	QF703	709	QG470	743	QL130
	642	QF475	676	QF706	710	QG472	744	QL131

	745	QL14	779	QO16	813	QS28	847	QU435
	746	QL16	780	QO164	814	QS39	848	QU449
	747	QL18	781	QO167	815	QS47	849	QU456
	748	QL31	782	QO169	816	QS82	850	QU459
5	749	QL33	783	QO17	817	QS85	851	QU475
	750	QL37	784	QO177	818	QT4	852	QU477
	751	QL4	785	QO203	819	QT6	853	QU483
	752	QL43	786	QO204	820	QU108	854	QU487
	753	QL54	787	QO206	821	QU156	855	QU499
10	754	QL80	788	QO37	822	QU159	856	QU512
	755	QL84	789	QO49	823	QU192	857	QU529
	756	QL98	790	QO75	824	QU210	858	QU532
	757	QM10	791	QO86	825	QU211	859	QU541
	758	QM13	792	QO91	826	QU218	860	QU542
15	759	QM20	793	QR10	827	QU225	861	QU549
	760	QM22	794	QR29	828	QU228	862	QU552
	761	QM23	795	QR40	829	QU234	863	QU567
	762	QM24	796	QR82	830	QU235	864	QU71
	763	QM34	797	QR91	831	QU243	865	QU97
20	764	QM39	798	QS120	832	QU260	866	QU98
	765	QM42	799	QS124	833	QU262	867	QV229
	766	QM54	800	QS13	834	QU298	868	QV235
	767	QM59	801	QS135	835	QU300	869	QV245
	768	QM77	802	QS14	836	QU303	870	QV257
25	769	QM89	803	QS140	837	QU307	871	QV289
	770	QN32	804	QS15	838	QU330	872	QV299
	771	QN7	805	QS153	839	QU332	873	QV306
	772	QO101	806	QS157	840	QU335	874	QV320
	773	QO111	807	QS16	841	QU348	875	QV326
30	774	QO115	808	QS160	842	QU355	876	QV327
	775	QO120	809	QS162	843	QU386	877	QV331
	776	QO140	810	QS164	844	QU398	878	QV349
	777	QO143	811	QS171	845	QU418	879	QV363
	778	QO157	812	QS20	846	QU420	880	QV364

	881	QV378	915	QY1261	949	QY1496	983	QY26
	882	QV391	916	QY1263	950	QY1497	984	QY261
	883	QV521	917	QY1268	951	QY15	985	QY266
	884	QV530	918	QY1271	952	QY1515	986	QY269
5	885	QV531	919	QY1285	953	QY1517	987	QY271
	886	QV538	920	QY1288	954	QY1555	988	QY277
	887	QV549	921	QY129	955	QY1560	989	QY295
	888	QX228	922	QY1299	956	QY1561	990	QY3
	889	QX233	923	QY1306	957	QY1570	991	QY318
10	890	QX264	924	QY1309	958	QY1586	992	QY331
	891	QX312	925	QY132	959	QY1593	993	QY338
	892	QX317	926	QY1327	960	QY1597	994	QY349
	893	QX338	927	QY1339	961	QY1608	995	QY356
	894	QY100	928	QY1342	962	QY1609	996	QY359
15	895	QY1013	929	QY1344	963	QY1642	997	QY361
	896	QY1042	930	QY1345	964	QY1645	998	QY385
	897	QY1065	931	QY1346	965	QY1649	999	QY401
	898	QY1068	932	QY1349	966	QY1660	1000	QY426
	899	QY1073	933	QY1352	967	QY1662	1001	QY441
20	900	QY1075	934	QY1358	968	QY1681	1002	QY442
	901	QY11	935	QY1361	969	QY1720	1003	QY444
	902	QY1102	936	QY1369	970	QY1748	1004	QY448
	903	QY1103	937	QY1376	971	QY1750	1005	QY45
	904	QY1108	938	QY1379	972	QY1753	1006	QY450
25	905	QY1141	939	QY138	973	QY1754	1007	QY458
	906	QY1175	940	QY1383	974	QY1755	1008	QY471
	907	QY1180	941	QY1388	975	QY1756	1009	QY478
	908	QY12	942	QY1394	976	QY1775	1010	QY502
	909	QY1209	943	QY1418	977	QY1781	1011	QY51
30	910	QY1215	944	QY1437	978	QY189	1012	QY536
	911	QY1221	945	QY1445	979	QY214	1013	QY550
	912	QY1224	946	QY1462	980	QY220	1014	QY562
	913	QY1256	947	QY1488	981	QY247	1015	QY566
	914	QY1259	948	QY1495	982	QY257	1016	QY571

	1017	QY593	1051	QZ452	1085	RB448	1119	RB806
	1018	QY623	1052	QZ466	1086	RB485	1120	RB81
	1019	QY644	1053	QZ484	1087	RB497	1121	RB810
	1020	QY704	1054	QZ492	1088	RB513	1122	RB819
5	1021	QY720	1055	QZ498	1089	RB535	1123	RB822
	1022	QY722	1056	RA1018	1090	RB540	1124	RB98
	1023	QY740	1057	RA1121	1091	RB541	1125	RC11
	1024	QY742	1058	RA138	1092	RB544	1126	RC14
	1025	QY746	1059	RA281	1093	RB580	1127	RC21
10	1026	QY757	1060	RA475	1094	RB619	1128	RC29
	1027	QY769	1061	RA562	1095	RB623	1129	RC3
	1028	QY798	1062	RA574	1096	RB627	1130	RC37
	1029	QY801	1063	RA618	1097	RB630	1131	RC57
	1030	QY812	1064	RA726	1098	RB649	1132	RC58
15	1031	QY823	1065	RA885	1099	RB66	1133	RC60
	1032	QY824	1066	RA892	1100	RB666	1134	RC65
	1033	QY833	1067	RA900	1101	RB668	1135	RC7
	1034	QY835	1068	RA905	1102	RB673	1136	RC76
	1035	QY856	1069	RB126	1103	RB674	1137	RD1025
20	1036	QY859	1070	RB160	1104	RB688	1138	RD1027
	1037	QY863	1071	RB164	1105	RB693	1139	RD103
	1038	QY87	1072	RB198	1106	RB714	1140	RD1030
	1039	QY880	1073	RB202	1107	RB727	1141	RD1039
	1040	QY884	1074	RB206	1108	RB738	1142	RD1046
25	1041	QY89	1075	RB218	1109	RB749	1143	RD1049
	1042	QY99	1076	RB231	1110	RB758	1144	RD1054
	1043	QZ118	1077	RB312	1111	RB771	1145	RD1058
	1044	QZ127	1078	RB313	1112	RB773	1146	RD1059
	1045	QZ159	1079	RB342	1113	RB778	1147	RD1068
30	1046	QZ284	1080	RB382	1114	RB788	1148	RD1073
	1047	QZ290	1081	RB40	1115	RB789	1149	RD1094
	1048	QZ311	1082	RB409	1116	RB791	1150	RD1101
	1049	QZ382	1083	RB419	1117	RB792	1151	RD1102
	1050	QZ422	1084	RB422	1118	RB80	1152	RD1109

	1153	RD1111	1187	RD542	1221	RD925	1255	RG184
	1154	RD1124	1188	RD567	1222	RD942	1256	RG199
	1155	RD1131	1189	RD569	1223	RD946	1257	RG200
	1156	RD1141	1190	RD59	1224	RD954	1258	RG211
5	1157	RD1143	1191	RD592	1225	RD959	1259	RG219
	1158	RD1147	1192	RD610	1226	RD960	1260	RG241
	1159	RD1156	1193	RD616	1227	RD962	1261	RG246
	1160	RD1158	1194	RD62	1228	RD966	1262	RG248
	1161	RD1168	1195	RD649	1229	RD969	1263	RG272
10	1162	RD1179	1196	RD652	1230	RD989	1264	RG278
	1163	RD1195	1197	RD67	1231	RD996	1265	RG287
	1164	RD187	1198	RD680	1232	RD997	1266	RG296
	1165	RD194	1199	RD76	1233	RE127	1267	RG299
	1166	RD207	1200	RD775	1234	RE133	1268	RG315
15	1167	RD210	1201	RD778	1235	RE15	1269	RG325
	1168	RD214	1202	RD786	1236	RE219	1270	RG33
	1169	RD229	1203	RD788	1237	RE257	1271	RG333
	1170	RD232	1204	RD792	1238	RE326	1272	RG342
	1171	RD252	1205	RD798	1239	RE345	1273	RG348
20	1172	RD263	1206	RD8	1240	RE365	1274	RG352
	1173	RD309	1207	RD807	1241	RE72	1275	RG353
	1174	RD310	1208	RD810	1242	RF282	1276	RG367
	1175	RD312	1209	RD811	1243	RF439	1277	RG390
	1176	RD392	1210	RD825	1244	RF476	1278	RG407
25	1177	RD432	1211	RD826	1245	RF499	1279	RG409
	1178	RD435	1212	RD852	1246	RF84	1280	RG419
	1179	RD440	1213	RD853	1247	RG105	1281	RG445
	1180	RD456	1214	RD863	1248	RG113	1282	RG447
	1181	RD47	1215	RD870	1249	RG133	1283	RG452
30	1182	RD5	1216	RD876	1250	RG137	1284	RG453
	1183	RD517	1217	RD902	1251	RG145	1285	RG473
	1184	RD52	1218	RD913	1252	RG158	1286	RG48
	1185	RD530	1219	RD917	1253	RG177	1287	RG481
	1186	RD539	1220	RD918	1254	RG178	1288	RG482

	1289	RG494	1323	RI130	1357	RJ497	1391	RJ897
	1290	RG522	1324	RI21	1358	RJ499	1392	RJ898
	1291	RG528	1325	RI231	1359	RJ504	1393	RJ900
	1292	RG531	1326	RI91	1360	RJ507	1394	RJ903
5	1293	RG533	1327	RJ118	1361	RJ520	1395	RJ925
	1294	RG539	1328	RJ137	1362	RJ525	1396	RJ95
	1295	RG555	1329	RJ139	1363	RJ533	1397	RJ952
	1296	RG563	1330	RJ150	1364	RJ545	1398	RJ965
	1297	RG571	1331	RJ170	1365	RJ552	1399	RK100
10	1298	RG575	1332	RJ187	1366	RJ601	1400	RK115
	1299	RG583	1333	RJ214	1367	RJ652	1401	RK137
	1300	RG590	1334	RJ216	1368	RJ653	1402	RK144
	1301	RG593	1335	RJ223	1369	RJ656	1403	RK170
	1302	RG604	1336	RJ224	1370	RJ7	1404	RK211
15	1303	RG615	1337	RJ23	1371	RJ713	1405	RK216
	1304	RG631	1338	RJ243	1372	RJ719	1406	RK23
	1305	RG633	1339	RJ286	1373	RJ724	1407	RK253
	1306	RG636	1340	RJ288	1374	RJ727	1408	RK255
	1307	RG64	1341	RJ338	1375	RJ731	1409	RK260
20	1308	RG652	1342	RJ348	1376	RJ742	1410	RK265
	1309	RG656	1343	RJ353	1377	RJ749	1411	RK28
	1310	RG661	1344	RJ359	1378	RJ777	1412	RK41
	1311	RG663	1345	RJ361	1379	RJ779	1413	RK47
	1312	RG671	1346	RJ384	1380	RJ781	1414	RK59
25	1313	RH14	1347	RJ4	1381	RJ792	1415	RK65
	1314	RH17	1348	RJ402	1382	RJ8	1416	RK80
	1315	RH20	1349	RJ405	1383	RJ813	1417	RL106
	1316	RH22	1350	RJ431	1384	RJ828	1418	RL121
	1317	RH26	1351	RJ455	1385	RJ85	1419	RL122
30	1318	RH31	1352	RJ462	1386	RJ859	1420	RL128
	1319	RH41	1353	RJ465	1387	RJ870	1421	RL146
	1320	RH445	1354	RJ471	1388	RJ874	1422	RL15
	1321	RH510	1355	RJ482	1389	RJ890	1423	RL151
	1322	RI10	1356	RJ493	1390	RJ891	1424	RL169

	1425	RL188	1459	RL862	1493	RT1	1527	RU198
	1426	RL19	1460	RL87	1494	RT104	1528	RU199
	1427	RL245	1461	RL884	1495	RT11	1529	RU204
	1428	RL266	1462	RL885	1496	RT113	1530	RU220
5	1429	RL295	1463	RL886	1497	RT12	1531	RU233
	1430	RL310	1464	RL905	1498	RT120	1532	RU244
	1431	RL334	1465	RL957	1499	RT138	1533	RU255
	1432	RL336	1466	RL967	1500	RT15	1534	RU286
	1433	RL341	1467	RL969	1501	RT16	1535	RU288
10	1434	RL344	1468	RL979	1502	RT28	1536	RU292
	1435	RL356	1469	RM19	1503	RT34	1537	RU294
	1436	RL359	1470	RM26	1504	RT40	1538	RU327
	1437	RL360	1471	RN14	1505	RT42	1539	RU330
	1438	RL379	1472	RN17	1506	RT63	1540	RU333
15	1439	RL397	1473	RN43	1507	RT69	1541	RU355
	1440	RL455	1474	RN46	1508	RT70	1542	RU375
	1441	RL465	1475	RN55	1509	RT85	1543	RU388
	1442	RL487	1476	RN65	1510	RT88	1544	RU391
	1443	RL498	1477	RN75	1511	RT89	1545	RU50
20	1444	RL52	1478	RN81	1512	RT96	1546	RU71
	1445	RL565	1479	RN82	1513	RU11	1547	RU80
	1446	RL579	1480	RN85	1514	RU12	1548	RV106
	1447	RL606	1481	RP123	1515	RU120	1549	RV122
	1448	RL645	1482	RP146	1516	RU13	1550	RV144
25	1449	RL655	1483	RP161	1517	RU135	1551	RV15
	1450	RL693	1484	RP33	1518	RU14	1552	RV175
	1451	RL718	1485	RP34	1519	RU140	1553	RV21
	1452	RL721	1486	RP57	1520	RU146	1554	RV228
	1453	RL743	1487	RP81	1521	RU147	1555	RV239
30	1454	RL749	1488	RP87	1522	RU15	1556	RV247
	1455	RL808	1489	RQ15	1523	RU157	1557	RV252
	1456	RL83	1490	RR19	1524	RU172	1558	RV263
	1457	RL832	1491	RR20	1525	RU179	1559	RV271
	1458	RL840	1492	RS2	1526	RU182	1560	RV296

	1561	RV298	1595	RV805	1629	RX205	1663	RX536
	1562	RV305	1596	RV880	1630	RX209	1664	RX538
	1563	RV310	1597	RV9	1631	RX213	1665	RX554
	1564	RV319	1598	RW109	1632	RX22	1666	RX66
5	1565	RV422	1599	RW123	1633	RX245	1667	RX90
	1566	RV465	1600	RW193	1634	RX249	1668	RY140
	1567	RV476	1601	RW197	1635	RX252	1669	RY152
	1568	RV48	1602	RW253	1636	RX255	1670	RY193
	1569	RV49	1603	RW257	1637	RX263	1671	RY24
10	1570	RV490	1604	RW278	1638	RX282	1672	RY25
	1571	RV498	1605	RW290	1639	RX294	1673	RY295
	1572	RV504	1606	RW302	1640	RX314	1674	RY297
	1573	RV524	1607	RW344	1641	RX322	1675	RY307
	1574	RV555	1608	RW38	1642	RX326	1676	RY328
15	1575	RV576	1609	RW382	1643	RX332	1677	RY35
	1576	RV579	1610	RW440	1644	RX363	1678	RY385
	1577	RV598	1611	RW447	1645	RX373	1679	RY394
	1578	RV612	1612	RW456	1646	RX375	1680	RY418
	1579	RV627	1613	RW464	1647	RX392	1681	RY429
20	1580	RV634	1614	RW480	1648	RX40	1682	RY438
	1581	RV635	1615	RW488	1649	RX417	1683	RY450
	1582	RV637	1616	RW51	1650	RX419	1684	RY465
	1583	RV643	1617	RW513	1651	RX431	1685	RY47
	1584	RV656	1618	RW520	1652	RX443	1686	RY471
25	1585	RV681	1619	RW58	1653	RX466	1687	RY496
	1586	RV705	1620	RW661	1654	RX478	1688	RY535
	1587	RV707	1621	RW693	1655	RX479	1689	RY551
	1588	RV72	1622	RW84	1656	RX487	1690	RY580
	1589	RV724	1623	RX127	1657	RX491	1691	RY674
30	1590	RV759	1624	RX166	1658	RX499	1692	RY675
	1591	RV778	1625	RX176	1659	RX510	1693	RY681
	1592	RV796	1626	RX18	1660	RX527	1694	RY80
	1593	RV801	1627	RX185	1661	RX528	1695	RY81
	1594	RV803	1628	RX192	1662	RX534	1696	RZ126

	1697	RZ129	1731	SA139	1765	SB15	1799	SC265
	1698	RZ142	1732	SA140	1766	SB171	1800	SC271
	1699	RZ16	1733	SA323	1767	SB172	1801	SC273
	1700	RZ221	1734	SA33	1768	SB20	1802	SC294
5	1701	RZ224	1735	SA331	1769	SB228	1803	SC296
	1702	RZ226	1736	SA34	1770	SB230	1804	SC298
	1703	RZ262	1737	SA361	1771	SB236	1805	SC318
	1704	RZ304	1738	SA404	1772	SB250	1806	SC341
	1705	RZ323	1739	SA481	1773	SB256	1807	SC359
10	1706	RZ361	1740	SA488	1774	SB276	1808	SC370
	1707	RZ405	1741	SA493	1775	SB280	1809	SC382
	1708	RZ409	1742	SA508	1776	SB342	1810	SC394
	1709	RZ411	1743	SA537	1777	SB36	1811	SC40
	1710	RZ425	1744	SA539	1778	SB39	1812	SC401
15	1711	RZ435	1745	SA543	1779	SB44	1813	SC404
	1712	RZ44	1746	SA569	1780	SB49	1814	SC46
	1713	RZ454	1747	SA570	1781	SB66	1815	SC58
	1714	RZ514	1748	SA576	1782	SB86	1816	SC59
	1715	RZ527	1749	SA601	1783	SC115	1817	SC88
20	1716	RZ553	1750	SA624	1784	SC117	1818	SC89
	1717	RZ568	1751	SA627	1785	SC136	1819	SD55
	1718	RZ599	1752	SA629	1786	SC144	1820	SE42
	1719	RZ610	1753	SA638	1787	SC145	1821	SE71
	1720	RZ627	1754	SA643	1788	SC163	1822	SF120
25	1721	RZ664	1755	SA649	1789	SC164	1823	SF124
	1722	RZ670	1756	SA664	1790	SC17	1824	SF125
	1723	RZ692	1757	SA679	1791	SC173	1825	SF138
	1724	RZ698	1758	SA74	1792	SC176	1826	SF146
	1725	RZ730	1759	SA79	1793	SC193	1827	SF156
30	1726	S1	1760	SB12	1794	SC199	1828	SF172
	1727	S199	1761	SB123	1795	SC209	1829	SF173
	1728	SA120	1762	SB147	1796	SC226	1830	SF180
	1729	SA122	1763	SB148	1797	SC244	1831	SF184
	1730	SA124	1764	SB149	1798	SC245	1832	SF206

	1833	SF222	1867	SF59	1901	SG352	1935	WG63
	1834	SF226	1868	SF592	1902	SG77	1936	WG67
	1835	SF240	1869	SF601	1903	T85	1937	WG75
	1836	SF245	1870	SF608	1904	V207	1938	WG76
5	1837	SF249	1871	SF624	1905	V222	1939	WG77
	1838	SF265	1872	SF626	1906	WA109	1940	WG9
	1839	SF275	1873	SF637	1907	WA118	1941	WG90
	1840	SF286	1874	SF67	1908	WA129	1942	WG93
	1841	SF292	1875	SF69	1909	WA135	1943	WG94
10	1842	SF302	1876	SF78	1910	WA15	1944	WH101
	1843	SF303	1877	SF98	1911	WA153	1945	WH110
	1844	SF307	1878	SG1	1912	WA154	1946	WH113
	1845	SF309	1879	SG122	1913	WA545	1947	WH114
	1846	SF315	1880	SG124	1914	WC73	1948	WH117
15	1847	SF339	1881	SG126	1915	WC74	1949	WH119
	1848	SF34	1882	SG127	1916	WC88	1950	WH120
	1849	SF340	1883	SG148	1917	WF2	1951	WH128
	1850	SF348	1884	SG15	1918	WF3	1952	WH129
	1851	SF371	1885	SG169	1919	WF4	1953	WH13
20	1852	SF379	1886	SG213	1920	WG14	1954	WH130
	1853	SF401	1887	SG243	1921	WG21	1955	WH133
	1854	SF429	1888	SG261	1922	WG24	1956	WH135
	1855	SF442	1889	SG262	1923	WG26	1957	WH140
	1856	SF444	1890	SG272	1924	WG30	1958	WH142
25	1857	SF445	1891	SG275	1925	WG31	1959	WH146
	1858	SF465	1892	SG281	1926	WG32	1960	WH150
	1859	SF472	1893	SG293	1927	WG34	1961	WH155
	1860	SF497	1894	SG295	1928	WG39	1962	WH16
	1861	SF499	1895	SG312	1929	WG41	1963	WH169
30	1862	SF50	1896	SG334	1930	WG44	1964	WH17
	1863	SF517	1897	SG335	1931	WG53	1965	WH170
	1864	SF553	1898	SG345	1932	WG55	1966	WH175
	1865	SF577	1899	SG347	1933	WG59	1967	WH178
	1866	SF582	1900	SG35	1934	WG62	1968	WH179

	1969	WH180	2003	WI143	2037	WJ200	2071	WL554
	1970	WH181	2004	WI144	2038	WJ202	2072	WL556
	1971	WH185	2005	WI145	2039	WJ231	2073	WL560
	1972	WH200	2006	WI150	2040	WJ233	2074	WL561
5	1973	WH204	2007	WI152	2041	WJ236	2075	WL566
	1974	WH209	2008	WI156	2042	WJ238	2076	WL567
	1975	WH211	2009	WI168	2043	WJ243	2077	WL570
	1976	WH214	2010	WI173	2044	WJ245	2078	WL580
	1977	WH216	2011	WI175	2045	WJ248	2079	WL582
10	1978	WH219	2012	WI178	2046	WJ275	2080	WL637
	1979	WH22	2013	WI18	2047	WJ289	2081	WL644
	1980	WH224	2014	WI181	2048	WJ291	2082	WL647
	1981	WH230	2015	WI232	2049	WJ295	2083	WL657
	1982	WH26	2016	WI233	2050	WJ296	2084	WL663
15	1983	WH27	2017	WI234	2051	WJ301	2085	WL664
	1984	WH3	2018	WI239	2052	WK159	2086	WL666
	1985	WH30	2019	WI243	2053	WK168	2087	Z107
	1986	WH39	2020	WI244	2054	WK172	2088	Z123
	1987	WH40	2021	WI246	2055	WK174	2089	Z132
20	1988	WH43	2022	WI248	2056	WK177	2090	Z134
	1989	WH44	2023	WI251	2057	WK178	2091	Z135
	1990	WH47	2024	WI257	2058	WK185	2092	Z139
	1991	WI1	2025	WI265	2059	WK199	2093	Z145
	1992	WI108	2026	WI266	2060	WK200	2094	Z217
25	1993	WI109	2027	WI267	2061	WK215	2095	Z218
	1994	WI114	2028	WI268	2062	WK220	2096	Z243
	1995	WI116	2029	WI270	2063	WK225	2097	Z250
	1996	WI119	2030	WI44	2064	WK228	2098	Z253
	1997	WI12	2031	WI9	2065	WK234	2099	Z254
30	1998	WI125	2032	WI96	2066	WK247	2100	Z256
	1999	WI13	2033	WJ168	2067	WL503	2101	Z260
	2000	WI131	2034	WJ176	2068	WL508	2102	Z286
	2001	WI139	2035	WJ192	2069	WL519	2103	Z287
	2002	WI142	2036	WJ193	2070	WL546	2104	Z288

	2105	Z294	2139	Z729
	2106	Z320	2140	Z738
	2107	Z327	2141	Z743
	2108	Z328	2142	Z747
5	2109	Z338	2143	Z748
	2110	Z343	2144	Z749
	2111	Z372	2145	Z750
	2112	Z391	2146	Z756
	2113	Z415	2147	Z768
10	2114	Z450	2148	Z769
	2115	Z459	2149	Z792
	2116	Z469	2150	Z805
	2117	Z480	2151	Z806
	2118	Z497	2152	Z837
15	2119	Z504	2153	Z843
	2120	Z577	2154	Z847
	2121	Z584	2155	Z852
	2122	Z590	2156	Z856
	2123	Z594	2157	Z864
20	2124	Z599	2158	Z865
	2125	Z603	2159	Z871
	2126	Z607		
	2127	Z610		
	2128	Z617		
25	2129	Z624		
	2130	Z631		
	2131	Z633		
	2132	Z654		
	2133	Z656		
30	2134	Z660		
	2135	Z666		
	2136	Z674		
	2137	Z677		
	2138	Z719		

The "Clone ID No." for a particular clone consists of one or two letters followed by a number. The letters designate the tissue source from which the sEST was isolated. Table 3 below lists the various sources which were run through applicants' signal sequence trap. Thus, the tissue source for a particular sEST sequence can be identified
5 in Table 3 by the one and two letter designations used in the relevant "Clone ID No." in Table 2. For example, a clone designated as "PP85" would have been isolated from a human adult blood (lymphoblastic leukemia MOLT-4) library (i.e., selection "PP") as indicated in Table 3.

As used herein, "polynucleotide" includes single- and double-stranded RNAs,
10 DNAs and RNA:DNA hybrids.

As used herein a "secreted" protein is one which, when expressed in a suitable host cell, is transported across or through a membrane, including transport as a result of signal sequences in its amino acid sequence. "Secreted" proteins include without
15 limitation proteins secreted wholly (e.g., soluble proteins) or partially (e.g., receptors) from the cell in which they are expressed. "Secreted" proteins also include without limitation proteins which are transported across the membrane of the endoplasmic reticulum.

Fragments of the proteins of the present invention which are capable of exhibiting biological activity are also encompassed by the present invention.
20 Fragments of the protein may be in linear form or they may be cyclized using known methods, for example, as described in H.U. Saragovi, *et al.*, *Bio/Technology* 10, 773-778 (1992) and in R.S. McDowell, *et al.*, *J. Amer. Chem. Soc.* 114, 9245-9253 (1992), both of which are incorporated herein by reference. Such fragments may be fused to carrier molecules such as immunoglobulins for many purposes, including increasing
25 the valency of protein binding sites. For example, fragments of the protein may be fused through "linker" sequences to the Fc portion of an immunoglobulin. For a bivalent form of the protein, such a fusion could be to the Fc portion of an IgG molecule. Other immunoglobulin isotypes may also be used to generate such fusions. For example, a protein - IgM fusion would generate a decavalent form of the protein
30 of the invention.

The present invention also provides both full-length and mature forms of the disclosed proteins. The full-length form of the such proteins is identified in the sequence listing by translation of the nucleotide sequence of each disclosed clone. The mature form(s) of such protein may be obtained by expression of the disclosed

full-length polynucleotide (preferably those deposited with ATCC) in a suitable mammalian cell or other host cell. The sequence(s) of the mature form(s) of the protein may also be determinable from the amino acid sequence of the full-length form.

5 The present invention also provides genes corresponding to the polynucleotide sequences disclosed herein. "Corresponding genes" are the regions of the genome that are transcribed to produce the mRNAs from which cDNA polynucleotide sequences are derived and may include contiguous regions of the genome necessary for the regulated expression of such genes. Corresponding genes
10 may therefore include but are not limited to coding sequences, 5' and 3' untranslated regions, alternatively spliced exons, introns, promoters, enhancers, and silencer or suppressor elements. The corresponding genes can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include the preparation of probes or primers from the disclosed sequence information
15 for identification and/or amplification of genes in appropriate genomic libraries or other sources of genomic materials. An "isolated gene" is a gene that has been separated from the adjacent coding sequences, if any, present in the genome of the organism from which the gene was isolated.

The chromosomal location corresponding to the polynucleotide sequences
20 disclosed herein may also be determined, for example by hybridizing appropriately labeled polynucleotides of the present invention to chromosomes *in situ*. It may also be possible to determine the corresponding chromosomal location for a disclosed polynucleotide by identifying significantly similar nucleotide sequences in public databases, such as expressed sequence tags (ESTs), that have already been mapped
25 to particular chromosomal locations. For at least some of the polynucleotide sequences disclosed herein, public database sequences having at least some similarity to the polynucleotide of the present invention have been listed by database accession number. Searches using the GenBank accession numbers of these public database sequences can then be performed at an Internet site provided by the National Center
30 for Biotechnology Information having the address www.ncbi.nlm.nih.gov/UniGene, in order to identify "UniGene clusters" of overlapping sequences. Many of the "UniGene clusters" so identified will already have been mapped to particular chromosomal sites.

Organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein are provided. The desired change in gene expression can be achieved through the use of antisense polynucleotides or ribozymes that bind and/or cleave the mRNA transcribed from the gene (Albert and Morris, 1994, *Trends Pharmacol. Sci.* 15(7): 250-254; Lavarosky *et al.*, 1997, *Biochem. Mol. Med.* 62(1): 11-22; and Hampel, 1998, *Prog. Nucleic Acid Res. Mol. Biol.* 58: 1-39; all of which are incorporated by reference herein). Transgenic animals that have multiple copies of the gene(s) corresponding to the polynucleotide sequences disclosed herein, preferably produced by transformation of cells with genetic constructs that are stably maintained within the transformed cells and their progeny, are provided. Transgenic animals that have modified genetic control regions that increase or reduce gene expression levels, or that change temporal or spatial patterns of gene expression, are also provided (see European Patent No. 0 649 464 B1, incorporated by reference herein). In addition, organisms are provided in which the gene(s) corresponding to the polynucleotide sequences disclosed herein have been partially or completely inactivated, through insertion of extraneous sequences into the corresponding gene(s) or through deletion of all or part of the corresponding gene(s). Partial or complete gene inactivation can be accomplished through insertion, preferably followed by imprecise excision, of transposable elements (Plasterk, 1992, *Bioessays* 14(9): 629-633; Zwaal *et al.*, 1993, *Proc. Natl. Acad. Sci. USA* 90(16): 7431-7435; Clark *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* 91(2): 719-722; all of which are incorporated by reference herein), or through homologous recombination, preferably detected by positive/negative genetic selection strategies (Mansour *et al.*, 1988, *Nature* 336: 348-352; U.S. Patent Nos. 5,464,764; 5,487,992; 5,627,059; 5,631,153; 5,614,396; 5,616,491; and 5,679,523; all of which are incorporated by reference herein). These organisms with altered gene expression are preferably eukaryotes and more preferably are mammals. Such organisms are useful for the development of non-human models for the study of disorders involving the corresponding gene(s), and for the development of assay systems for the identification of molecules that interact with the protein product(s) of the corresponding gene(s).

Where the protein of the present invention is membrane-bound (e.g., is a receptor), the present invention also provides for soluble forms of such protein. In such forms part or all of the intracellular and transmembrane domains of the protein

are deleted such that the protein is fully secreted from the cell in which it is expressed. The intracellular and transmembrane domains of proteins of the invention can be identified in accordance with known techniques for determination of such domains from sequence information.

5 Proteins and protein fragments of the present invention include proteins with amino acid sequence lengths that are at least 25% (more preferably at least 50%, and most preferably at least 75%) of the length of a disclosed protein and have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with that disclosed protein, where sequence identity is
10 determined by comparing the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Also included in the present invention are proteins and protein fragments that contain a segment preferably comprising 8 or more (more preferably 20 or more, most preferably 30 or more) contiguous amino acids that shares at least 75% sequence identity (more
15 preferably, at least 85% identity; most preferably at least 95% identity) with any such segment of any of the disclosed proteins.

In particular, sequence identity may be determined using WU-BLAST (Washington University BLAST) version 2.0 software, which builds upon WU-BLAST version 1.4, which in turn is based on the public domain NCBI-BLAST
20 version 1.4 (Altschul and Gish, 1996, Local alignment statistics, Doolittle *ed.*, *Methods in Enzymology* 266: 460-480; Altschul *et al.*, 1990, Basic local alignment search tool, *Journal of Molecular Biology* 215: 403-410; Gish and States, 1993, Identification of protein coding regions by database similarity search, *Nature Genetics* 3: 266-272; Karlin and Altschul, 1993, Applications and statistics for multiple
25 high-scoring segments in molecular sequences, *Proc. Natl. Acad. Sci. USA* 90: 5873-5877; all of which are incorporated by reference herein). WU-BLAST version 2.0 executable programs for several UNIX platforms can be downloaded from the Internet file-transfer protocol (FTP) site <ftp://blast.wustl.edu/blast/executables>. The complete suite of search programs (BLASTP, BLASTN, BLASTX, TBLASTN, and
30 TBLASTX) is provided at that site, in addition to several support programs. WU-BLAST 2.0 is copyrighted and may not be sold or redistributed in any form or manner without the express written consent of the author; but the posted executables

may otherwise be freely used for commercial, nonprofit, or academic purposes. In all search programs in the suite -- BLASTP, BLASTN, BLASTX, TBLASTN and TBLASTX -- the gapped alignment routines are integral to the database search itself, and thus yield much better sensitivity and selectivity while producing the more easily
5 interpreted output. Gapping can optionally be turned off in all of these programs, if desired. The default penalty (Q) for a gap of length one is Q=9 for proteins and BLASTP, and Q=10 for BLASTN, but may be changed to any integer value including zero, one through eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. The default per-residue penalty for extending
10 a gap (R) is R=2 for proteins and BLASTP, and R=10 for BLASTN, but may be changed to any integer value including zero, one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. Any combination of values for Q and R can be used in order to align sequences so as to maximize overlap and identity while minimizing
15 sequence gaps. The default amino acid comparison matrix is BLOSUM62, but other amino acid comparison matrices such as PAM can be utilized.

Species homologues of the disclosed polynucleotides and proteins are also provided by the present invention. As used herein, a "species homologue" is a protein or polynucleotide with a different species of origin from that of a given protein
20 or polynucleotide, but with significant sequence similarity to the given protein or polynucleotide. Preferably, polynucleotide species homologues have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, and protein species homologues have at least
25 30% sequence identity (more preferably, at least 45% identity; most preferably at least 60% identity) with the given protein, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides or the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Species homologues may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening
30 a suitable nucleic acid source from the desired species. Preferably, species homologues are those isolated from mammalian species. Most preferably, species homologues are those isolated from certain mammalian species such as, for example,

Pan troglodytes, *Gorilla gorilla*, *Pongo pygmaeus*, *Hylobates concolor*, *Macaca mulatta*, *Papio papio*, *Papio hamadryas*, *Cercopithecus aethiops*, *Cebus capucinus*, *Aotus trivirgatus*, *Sanguinus oedipus*, *Microcebus murinus*, *Mus musculus*, *Rattus norvegicus*, *Cricetulus griseus*, *Felis catus*, *Mustela vison*, *Canis familiaris*, *Oryctolagus cuniculus*, *Bos taurus*, *Ovis aries*, *Sus scrofa*, and *Equus caballus*, for which genetic maps have been created allowing the identification of syntenic relationships between the genomic organization of genes in one species and the genomic organization of the related genes in another species (O'Brien and Seuánez, 1988, *Ann. Rev. Genet.* 22: 323-351; O'Brien *et al.*, 1993, *Nature Genetics* 3:103-112; Johansson *et al.*, 1995, *Genomics* 25: 682-690; Lyons *et al.*, 1997, *Nature Genetics* 15: 47-56; O'Brien *et al.*, 1997, *Trends in Genetics* 13(10): 393-399; Carver and Stubbs, 1997, *Genome Research* 7:1123-1137; all of which are incorporated by reference herein).

The invention also encompasses allelic variants of the disclosed polynucleotides or proteins; that is, naturally-occurring alternative forms of the isolated polynucleotides which also encode proteins which are identical or have significantly similar sequences to those encoded by the disclosed polynucleotides. Preferably, allelic variants have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps. Allelic variants may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from individuals of the appropriate species.

The invention also includes polynucleotides with sequences complementary to those of the polynucleotides disclosed herein.

The present invention also includes polynucleotides that hybridize under reduced stringency conditions, more preferably stringent conditions, and most preferably highly stringent conditions, to polynucleotides described herein. Examples of stringency conditions are shown in the table below: highly stringent conditions are those that are at least as stringent as, for example, conditions A-F; stringent conditions are at least as stringent as, for example, conditions G-L; and reduced stringency conditions are at least as stringent as, for example, conditions M-R.

Stringency Condition	Polynucleotide Hybrid	Hybrid Length (bp) [†]	Hybridization Temperature and Buffer [‡]	Wash Temperature and Buffer [‡]
A	DNA:DNA	≥ 50	65°C; 1xSSC -or- 42°C; 1xSSC, 50% formamide	65°C; 0.3xSSC
B	DNA:DNA	<50	T _B [*] ; 1xSSC	T _B [*] ; 1xSSC
C	DNA:RNA	≥ 50	67°C; 1xSSC -or- 45°C; 1xSSC, 50% formamide	67°C; 0.3xSSC
D	DNA:RNA	<50	T _D [*] ; 1xSSC	T _D [*] ; 1xSSC
E	RNA:RNA	≥ 50	70°C; 1xSSC -or- 50°C; 1xSSC, 50% formamide	70°C; 0.3xSSC
F	RNA:RNA	<50	T _F [*] ; 1xSSC	T _F [*] ; 1xSSC
G	DNA:DNA	≥ 50	65°C; 4xSSC -or- 42°C; 4xSSC, 50% formamide	65°C; 1xSSC
H	DNA:DNA	<50	T _H [*] ; 4xSSC	T _H [*] ; 4xSSC
I	DNA:RNA	≥ 50	67°C; 4xSSC -or- 45°C; 4xSSC, 50% formamide	67°C; 1xSSC
J	DNA:RNA	<50	T _J [*] ; 4xSSC	T _J [*] ; 4xSSC
K	RNA:RNA	≥ 50	70°C; 4xSSC -or- 50°C; 4xSSC, 50% formamide	67°C; 1xSSC
L	RNA:RNA	<50	T _L [*] ; 2xSSC	T _L [*] ; 2xSSC
M	DNA:DNA	≥ 50	50°C; 4xSSC -or- 40°C; 6xSSC, 50% formamide	50°C; 2xSSC
N	DNA:DNA	<50	T _N [*] ; 6xSSC	T _N [*] ; 6xSSC
O	DNA:RNA	≥ 50	55°C; 4xSSC -or- 42°C; 6xSSC, 50% formamide	55°C; 2xSSC
P	DNA:RNA	<50	T _P [*] ; 6xSSC	T _P [*] ; 6xSSC
Q	RNA:RNA	≥ 50	60°C; 4xSSC -or- 45°C; 6xSSC, 50% formamide	60°C; 2xSSC
R	RNA:RNA	<50	T _R [*] ; 4xSSC	T _R [*] ; 4xSSC

[†]: The hybrid length is that anticipated for the hybridized region(s) of the hybridizing polynucleotides. When hybridizing a polynucleotide to a target polynucleotide of unknown sequence, the hybrid length is assumed to be that of the hybridizing polynucleotide. When polynucleotides of known sequence are hybridized, the hybrid length can be determined by aligning the sequences of the polynucleotides and identifying the region or regions of optimal sequence complementarity.

[‡]: SSPE (1xSSPE is 0.15M NaCl, 10mM NaH₂PO₄, and 1.25mM EDTA, pH 7.4) can be substituted for SSC (1xSSC is 0.15M NaCl and 15mM sodium citrate) in the hybridization and wash buffers; washes are performed for 15 minutes after hybridization is complete.

^{*}T_B - T_R: The hybridization temperature for hybrids anticipated to be less than 50 base pairs in length should be 5-10°C less than the melting temperature (T_m) of the hybrid, where T_m is determined according to the following equations. For hybrids less than 18 base pairs in length, T_m(°C) = 2(# of A + T bases) + 4(# of G + C bases). For hybrids between 18 and 49 base

pairs in length, $T_m(^{\circ}\text{C}) = 81.5 + 16.6(\log_{10}[\text{Na}^+]) + 0.41(\%G+C) - (600/N)$, where N is the number of bases in the hybrid, and $[\text{Na}^+]$ is the concentration of sodium ions in the hybridization buffer ($[\text{Na}^+]$ for 1xSSC = 0.165 M).

- 5 Additional examples of stringency conditions for polynucleotide hybridization are provided in Sambrook, J., E.F. Fritsch, and T. Maniatis, 1989, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, chapters 9 and 11, and *Current Protocols in Molecular Biology*, 1995, F.M. Ausubel et al., eds., John Wiley & Sons, Inc., sections 2.10 and 6.3-6.4, incorporated herein by reference.

- 10 Preferably, each such hybridizing polynucleotide has a length that is at least 25% (more preferably at least 50%, and most preferably at least 75%) of the length of the polynucleotide of the present invention to which it hybridizes, and has at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 15 90% or 95% identity) with the polynucleotide of the present invention to which it hybridizes, where sequence identity is determined by comparing the sequences of the hybridizing polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps.

- The isolated polynucleotide of the invention may contain sequences at its 5' and/or 3' end that are derived from linker, polylinker, or multiple cloning site sequences commonly found in vectors such as the pMT2 or pED expression vectors (see below). For example, sequences such as SEQ ID NO:2160, SEQ ID NO:2161, or SEQ ID NO:2162 may be found at the 5' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 3' end.
- 25 Similarly, sequences such as SEQ ID NO:2163, SEQ ID NO:2164, or SEQ ID NO:2165 may be found at the 3' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 5' end. In addition, variants of these linker sequences may be present in isolated polynucleotides of the invention, which linker variants vary from SEQ ID NO:2160 through SEQ ID NO:2165
- 30 by the alteration, insertion, or deletion of one or more nucleotides. Therefore, a preferred embodiment of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 25 and ending at nucleotide (N-25) of the SEQ ID NO for that polynucleotide, where N represents the total number of nucleotides in the sequence. As a specific example, a preferred
- 35 embodiment of the invention comprises the nucleotide sequence of SEQ ID NO:1

from nucleotide 25 to nucleotide 180, where the total number of nucleotides (N) in SEQ ID NO:1 is 205, and N-25 equals 180. More preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 30 and ending at nucleotide (N-30) of the
5 SEQ ID NO for that polynucleotide. Most preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 35 and ending at nucleotide (N-35) of the SEQ ID NO for that polynucleotide.

The isolated polynucleotide of the invention may be operably linked to an
10 expression control sequence such as the pMT2 or pED expression vectors disclosed in Kaufman *et al.*, Nucleic Acids Res. 19, 4485-4490 (1991), in order to produce the protein recombinantly. Many suitable expression control sequences are known in the art. General methods of expressing recombinant proteins are also known and are exemplified in R. Kaufman, Methods in Enzymology 185, 537-566 (1990). As defined
15 herein "operably linked" means that the isolated polynucleotide of the invention and an expression control sequence are situated within a vector or cell in such a way that the protein is expressed by a host cell which has been transformed (transfected) with the ligated polynucleotide/expression control sequence.

A number of types of cells may act as suitable host cells for expression of the
20 protein. Mammalian host cells include, for example, monkey COS cells, Chinese Hamster Ovary (CHO) cells, human kidney 293 cells, human epidermal A431 cells, human Colo205 cells, 3T3 cells, CV-1 cells, other transformed primate cell lines, normal diploid cells, cell strains derived from *in vitro* culture of primary tissue, primary explants, HeLa cells, mouse L cells, BHK, HL-60, U937, HaK or Jurkat cells.

25 Alternatively, it may be possible to produce the protein in lower eukaryotes such as yeast or in prokaryotes such as bacteria. Potentially suitable yeast strains include *Saccharomyces cerevisiae*, *Schizosaccharomyces pombe*, *Kluyveromyces* strains, *Candida*, or any yeast strain capable of expressing heterologous proteins. Potentially suitable bacterial strains include *Escherichia coli*, *Bacillus subtilis*, *Salmonella*
30 *typhimurium*, or any bacterial strain capable of expressing heterologous proteins. If the protein is made in yeast or bacteria, it may be necessary to modify the protein produced therein, for example by phosphorylation or glycosylation of the appropriate sites, in order to obtain the functional protein. Such covalent attachments may be accomplished using known chemical or enzymatic methods.

The protein may also be produced by operably linking the isolated polynucleotide of the invention to suitable control sequences in one or more insect expression vectors, and employing an insect expression system. Materials and methods for baculovirus/insect cell expression systems are commercially available in kit form from, *e.g.*, Invitrogen, San Diego, California, U.S.A. (the MaxBac® kit), and such methods are well known in the art, as described in Summers and Smith, Texas Agricultural Experiment Station Bulletin No. 1555 (1987), incorporated herein by reference. As used herein, an insect cell capable of expressing a polynucleotide of the present invention is "transformed."

10 The protein of the invention may be prepared by culturing transformed host cells under culture conditions suitable to express the recombinant protein. The resulting expressed protein may then be purified from such culture (*i.e.*, from culture medium or cell extracts) using known purification processes, such as gel filtration and ion exchange chromatography. The purification of the protein may also include an affinity column containing agents which will bind to the protein; one or more column steps over such affinity resins as concanavalin A-agarose, heparin-toyopearl® or Cibacrom blue 3GA Sepharose®; one or more steps involving hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or immunoaffinity chromatography.

20 Alternatively, the protein of the invention may also be expressed in a form which will facilitate purification. For example, it may be expressed as a fusion protein, such as those of maltose binding protein (MBP), glutathione-S-transferase (GST) or thioredoxin (TRX). Kits for expression and purification of such fusion proteins are commercially available from New England BioLabs (Beverly, MA), Pharmacia (Piscataway, NJ) and Invitrogen Corporation (Carlsbad, CA), respectively. The protein can also be tagged with an epitope and subsequently purified by using a specific antibody directed to such epitope. One such epitope ("Flag") is commercially available from the Eastman Kodak Company (New Haven, CT).

Finally, one or more reverse-phase high performance liquid chromatography (RP-HPLC) steps employing hydrophobic RP-HPLC media, *e.g.*, silica gel having pendant methyl or other aliphatic groups, can be employed to further purify the protein. Some or all of the foregoing purification steps, in various combinations, can also be employed to provide a substantially homogeneous isolated recombinant

protein. The protein thus purified is substantially free of other mammalian proteins and is defined in accordance with the present invention as an "isolated protein."

The protein of the invention may also be expressed as a product of transgenic animals, e.g., as a component of the milk of transgenic cows, goats, pigs, or sheep
5 which are characterized by somatic or germ cells containing a nucleotide sequence encoding the protein.

The protein may also be produced by known conventional chemical synthesis. Methods for constructing the proteins of the present invention by synthetic means are known to those skilled in the art. The synthetically-constructed protein sequences,
10 by virtue of sharing primary, secondary or tertiary structural and/or conformational characteristics with proteins may possess biological properties in common therewith, including protein activity. Thus, they may be employed as biologically active or immunological substitutes for natural, purified proteins in screening of therapeutic compounds and in immunological processes for the development of antibodies.

15 The proteins provided herein also include proteins characterized by amino acid sequences similar to those of purified proteins but into which modification are naturally provided or deliberately engineered. For example, modifications in the peptide or DNA sequences can be made by those skilled in the art using known techniques. Modifications of interest in the protein sequences may include the
20 alteration, substitution, replacement, insertion or deletion of a selected amino acid residue in the coding sequence. For example, one or more of the cysteine residues may be deleted or replaced with another amino acid to alter the conformation of the molecule. Techniques for such alteration, substitution, replacement, insertion or deletion are well known to those skilled in the art (see, e.g., U.S. Patent No.
25 4,518,584). Preferably, such alteration, substitution, replacement, insertion or deletion retains the desired activity of the protein.

Other fragments and derivatives of the sequences of proteins which would be expected to retain protein activity in whole or in part and may thus be useful for screening or other immunological methodologies may also be easily made by those
30 skilled in the art given the disclosures herein. Such modifications are believed to be encompassed by the present invention.

USES AND BIOLOGICAL ACTIVITY

The polynucleotides and proteins of the present invention are expected to exhibit one or more of the uses or biological activities (including those associated with assays cited herein) identified below. Uses or activities described for proteins of the present invention may be provided by administration or use of such proteins or by administration or use of polynucleotides encoding such proteins (such as, for example, in gene therapies or vectors suitable for introduction of DNA).

Research Uses and Utilities

The polynucleotides provided by the present invention can be used by the research community for various purposes. The primary use of polynucleotides of the invention which are sESTs is as probes for the identification and isolation of full-length cDNAs and genomic DNA molecules which correspond (i.e., is a longer polynucleotide sequence of which substantially the entire sEST is a fragment in the case of a full-length cDNA, or which encodes the sEST in the case of a genomic DNA molecule) to such sESTs. Techniques for use of such sequences as probes for larger cDNAs or genomic molecules are well known in the art.

The polynucleotides can also be used to express recombinant protein for analysis, characterization or therapeutic use; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in disease states); as molecular weight markers on Southern gels; as chromosome markers or tags (when labeled) to identify chromosomes or to map related gene positions; to compare with endogenous DNA sequences in patients to identify potential genetic disorders; as probes to hybridize and thus discover novel, related DNA sequences; as a source of information to derive PCR primers for genetic fingerprinting; as a probe to "subtract-out" known sequences in the process of discovering other novel polynucleotides; for selecting and making oligomers for attachment to a "gene chip" or other support, including for examination of expression patterns; to raise anti-protein antibodies using DNA immunization techniques; and as an antigen to raise anti-DNA antibodies or elicit another immune response. Where the polynucleotide encodes a protein which binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the polynucleotide can also be used in interaction trap assays (such as, for example, that described in Gyuris et al., Cell 75:791-803 (1993)) to

identify polynucleotides encoding the other protein with which binding occurs or to identify inhibitors of the binding interaction.

The proteins provided by the present invention can similarly be used in assay to determine biological activity, including in a panel of multiple proteins for high-throughput screening; to raise antibodies or to elicit another immune response; as a reagent (including the labeled reagent) in assays designed to quantitatively determine levels of the protein (or its receptor) in biological fluids; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in a disease state); and, of course, to isolate correlative receptors or ligands. Where the protein binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the protein can be used to identify the other protein with which binding occurs or to identify inhibitors of the binding interaction. Proteins involved in these binding interactions can also be used to screen for peptide or small molecule inhibitors or agonists of the binding interaction.

Any or all of these research utilities are capable of being developed into reagent grade or kit format for commercialization as research products.

Methods for performing the uses listed above are well known to those skilled in the art. References disclosing such methods include without limitation "Molecular Cloning: A Laboratory Manual", 2d ed., Cold Spring Harbor Laboratory Press, Sambrook, J., E.F. Fritsch and T. Maniatis eds., 1989, and "Methods in Enzymology: Guide to Molecular Cloning Techniques", Academic Press, Berger, S.L. and A.R. Kimmel eds., 1987.

Nutritional Uses

Polynucleotides and proteins of the present invention can also be used as nutritional sources or supplements. Such uses include without limitation use as a protein or amino acid supplement, use as a carbon source, use as a nitrogen source and use as a source of carbohydrate. In such cases the protein or polynucleotide of the invention can be added to the feed of a particular organism or can be administered as a separate solid or liquid preparation, such as in the form of powder, pills, solutions, suspensions or capsules. In the case of microorganisms, the protein or polynucleotide of the invention can be added to the medium in or on which the microorganism is cultured.

Cytokine and Cell Proliferation/Differentiation Activity

A protein of the present invention may exhibit cytokine, cell proliferation (either inducing or inhibiting) or cell differentiation (either inducing or inhibiting) activity or may induce production of other cytokines in certain cell populations.

- 5 Many protein factors discovered to date, including all known cytokines, have exhibited activity in one or more factor dependent cell proliferation assays, and hence the assays serve as a convenient confirmation of cytokine activity. The activity of a protein of the present invention is evidenced by any one of a number of routine factor dependent cell proliferation assays for cell lines including, without limitation, 32D, 10 DA2, DA1G, T10, B9, B9/11, BaF3, MC9/G, M+ (preB M+), 2E8, RB5, DA1, 123, T1165, HT2, CTLL2, TF-1, Mo7e and CMK.

The activity of a protein of the invention may, among other means, be measured by the following methods:

- Assays for T-cell or thymocyte proliferation include without limitation those 15 described in: *Current Protocols in Immunology*, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., *J. Immunol.* 137:3494-3500, 1986; Bertagnolli et al., *J. Immunol.* 145:1706-1712, 1990; Bertagnolli 20 et al., *Cellular Immunology* 133:327-341, 1991; Bertagnolli, et al., *J. Immunol.* 149:3778-3783, 1992; Bowman et al., *J. Immunol.* 152: 1756-1761, 1994.

- Assays for cytokine production and/or proliferation of spleen cells, lymph node cells or thymocytes include, without limitation, those described in: Polyclonal T cell stimulation, Kruisbeek, A.M. and Shevach, E.M. In *Current Protocols in* 25 *Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.12.1-3.12.14, John Wiley and Sons, Toronto. 1994; and Measurement of mouse and human Interferon γ , Schreiber, R.D. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.8.1-6.8.8, John Wiley and Sons, Toronto. 1994.

- Assays for proliferation and differentiation of hematopoietic and 30 lymphopoietic cells include, without limitation, those described in: Measurement of Human and Murine Interleukin 2 and Interleukin 4, Bottomly, K., Davis, L.S. and Lipsky, P.E. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.3.1-6.3.12, John Wiley and Sons, Toronto. 1991; deVries et al., *J. Exp. Med.* 173:1205-1211, 1991; Moreau et al., *Nature* 336:690-692, 1988; Greenberger et al., *Proc.*

- Natl. Acad. Sci. U.S.A. 80:2931-2938, 1983; Measurement of mouse and human interleukin 6 - Nordan, R. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.6.1-6.6.5, John Wiley and Sons, Toronto. 1991; Smith et al., Proc. Natl. Acad. Sci. U.S.A. 83:1857-1861, 1986; Measurement of human Interleukin 11 - Bennett, F.,
- 5 Giannotti, J., Clark, S.C. and Turner, K. J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.15.1 John Wiley and Sons, Toronto. 1991; Measurement of mouse and human Interleukin 9 - Ciarletta, A., Giannotti, J., Clark, S.C. and Turner, K.J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.13.1, John Wiley and Sons, Toronto. 1991.
- 10 Assays for T-cell clone responses to antigens (which will identify, among others, proteins that affect APC-T cell interactions as well as direct T-cell effects by measuring proliferation and cytokine production) include, without limitation, those described in: *Current Protocols in Immunology*, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and
- 15 Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function; Chapter 6, Cytokines and their cellular receptors; Chapter 7, Immunologic studies in Humans); Weinberger et al., Proc. Natl. Acad. Sci. USA 77:6091-6095, 1980; Weinberger et al., Eur. J. Immun. 11:405-411, 1981; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988.

20

Immune Stimulating or Suppressing Activity

- A protein of the present invention may also exhibit immune stimulating or immune suppressing activity, including without limitation the activities for which assays are described herein. A protein may be useful in the treatment of various
- 25 immune deficiencies and disorders (including severe combined immunodeficiency (SCID)), e.g., in regulating (up or down) growth and proliferation of T and/or B lymphocytes, as well as effecting the cytolytic activity of NK cells and other cell populations. These immune deficiencies may be genetic or be caused by viral (e.g., HIV) as well as bacterial or fungal infections, or may result from autoimmune
- 30 disorders. More specifically, infectious diseases caused by viral, bacterial, fungal or other infection may be treatable using a protein of the present invention, including infections by HIV, hepatitis viruses, herpesviruses, mycobacteria, *Leishmania* spp., *malaria* spp. and various fungal infections such as candidiasis. Of course, in this

regard, a protein of the present invention may also be useful where a boost to the immune system generally may be desirable, *i.e.*, in the treatment of cancer.

Autoimmune disorders which may be treated using a protein of the present invention include, for example, connective tissue disease, multiple sclerosis, systemic lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary inflammation, Guillain-Barre syndrome, autoimmune thyroiditis, insulin dependent diabetes mellitus, myasthenia gravis, graft-versus-host disease and autoimmune inflammatory eye disease. Such a protein of the present invention may also to be useful in the treatment of allergic reactions and conditions, such as asthma (particularly allergic asthma) or other respiratory problems. Other conditions, in which immune suppression is desired (including, for example, organ transplantation), may also be treatable using a protein of the present invention.

Using the proteins of the invention it may also be possible to immune responses, in a number of ways. Down regulation may be in the form of inhibiting or blocking an immune response already in progress or may involve preventing the induction of an immune response. The functions of activated T cells may be inhibited by suppressing T cell responses or by inducing specific tolerance in T cells, or both. Immunosuppression of T cell responses is generally an active, non-antigen-specific, process which requires continuous exposure of the T cells to the suppressive agent. Tolerance, which involves inducing non-responsiveness or anergy in T cells, is distinguishable from immunosuppression in that it is generally antigen-specific and persists after exposure to the tolerizing agent has ceased. Operationally, tolerance can be demonstrated by the lack of a T cell response upon reexposure to specific antigen in the absence of the tolerizing agent.

Down regulating or preventing one or more antigen functions (including without limitation B lymphocyte antigen functions (such as , for example, B7)), *e.g.*, preventing high level lymphokine synthesis by activated T cells, will be useful in situations of tissue, skin and organ transplantation and in graft-versus-host disease (GVHD). For example, blockage of T cell function should result in reduced tissue destruction in tissue transplantation. Typically, in tissue transplants, rejection of the transplant is initiated through its recognition as foreign by T cells, followed by an immune reaction that destroys the transplant. The administration of a molecule which inhibits or blocks interaction of a B7 lymphocyte antigen with its natural ligand(s) on immune cells (such as a soluble, monomeric form of a peptide having

B7-2 activity alone or in conjunction with a monomeric form of a peptide having an activity of another B lymphocyte antigen (e.g., B7-1, B7-3) or blocking antibody), prior to transplantation can lead to the binding of the molecule to the natural ligand(s) on the immune cells without transmitting the corresponding costimulatory signal.

- 5 Blocking B lymphocyte antigen function in this matter prevents cytokine synthesis by immune cells, such as T cells, and thus acts as an immunosuppressant. Moreover, the lack of costimulation may also be sufficient to anergize the T cells, thereby inducing tolerance in a subject. Induction of long-term tolerance by B lymphocyte antigen-blocking reagents may avoid the necessity of repeated administration of
- 10 these blocking reagents. To achieve sufficient immunosuppression or tolerance in a subject, it may also be necessary to block the function of a combination of B lymphocyte antigens.

- The efficacy of particular blocking reagents in preventing organ transplant rejection or GVHD can be assessed using animal models that are predictive of efficacy
- 15 in humans. Examples of appropriate systems which can be used include allogeneic cardiac grafts in rats and xenogeneic pancreatic islet cell grafts in mice, both of which have been used to examine the immunosuppressive effects of CTLA4Ig fusion proteins *in vivo* as described in Lenschow *et al.*, Science 257:789-792 (1992) and Turka *et al.*, Proc. Natl. Acad. Sci USA, 89:11102-11105 (1992). In addition, murine models
- 20 of GVHD (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 846-847) can be used to determine the effect of blocking B lymphocyte antigen function *in vivo* on the development of that disease.

- Blocking antigen function may also be therapeutically useful for treating autoimmune diseases. Many autoimmune disorders are the result of inappropriate
- 25 activation of T cells that are reactive against self tissue and which promote the production of cytokines and autoantibodies involved in the pathology of the diseases. Preventing the activation of autoreactive T cells may reduce or eliminate disease symptoms. Administration of reagents which block costimulation of T cells by disrupting receptor:ligand interactions of B lymphocyte antigens can be used to
- 30 inhibit T cell activation and prevent production of autoantibodies or T cell-derived cytokines which may be involved in the disease process. Additionally, blocking reagents may induce antigen-specific tolerance of autoreactive T cells which could lead to long-term relief from the disease. The efficacy of blocking reagents in preventing or alleviating autoimmune disorders can be determined using a number

of well-characterized animal models of human autoimmune diseases. Examples include murine experimental autoimmune encephalitis, systemic lupus erythematosus in MRL/*lpr/lpr* mice or NZB hybrid mice, murine autoimmune collagen arthritis, diabetes mellitus in NOD mice and BB rats, and murine experimental myasthenia gravis (see Paul ed., *Fundamental Immunology*, Raven Press, New York, 1989, pp. 840-856).

Upregulation of an antigen function (preferably a B lymphocyte antigen function), as a means of up regulating immune responses, may also be useful in therapy. Upregulation of immune responses may be in the form of enhancing an existing immune response or eliciting an initial immune response. For example, enhancing an immune response through stimulating B lymphocyte antigen function may be useful in cases of viral infection. In addition, systemic viral diseases such as influenza, the common cold, and encephalitis might be alleviated by the administration of stimulatory forms of B lymphocyte antigens systemically.

Alternatively, anti-viral immune responses may be enhanced in an infected patient by removing T cells from the patient, costimulating the T cells *in vitro* with viral antigen-pulsed APCs either expressing a peptide of the present invention or together with a stimulatory form of a soluble peptide of the present invention and reintroducing the *in vitro* activated T cells into the patient. Another method of enhancing anti-viral immune responses would be to isolate infected cells from a patient, transfect them with a nucleic acid encoding a protein of the present invention as described herein such that the cells express all or a portion of the protein on their surface, and reintroduce the transfected cells into the patient. The infected cells would now be capable of delivering a costimulatory signal to, and thereby activate, T cells *in vivo*.

In another application, up regulation or enhancement of antigen function (preferably B lymphocyte antigen function) may be useful in the induction of tumor immunity. Tumor cells (*e.g.*, sarcoma, melanoma, lymphoma, leukemia, neuroblastoma, carcinoma) transfected with a nucleic acid encoding at least one peptide of the present invention can be administered to a subject to overcome tumor-specific tolerance in the subject. If desired, the tumor cell can be transfected to express a combination of peptides. For example, tumor cells obtained from a patient can be transfected *ex vivo* with an expression vector directing the expression of a peptide having B7-2-like activity alone, or in conjunction with a peptide having B7-1-

like activity and/or B7-3-like activity. The transfected tumor cells are returned to the patient to result in expression of the peptides on the surface of the transfected cell. Alternatively, gene therapy techniques can be used to target a tumor cell for transfection *in vivo*.

- 5 The presence of the peptide of the present invention having the activity of a B lymphocyte antigen(s) on the surface of the tumor cell provides the necessary costimulation signal to T cells to induce a T cell mediated immune response against the transfected tumor cells. In addition, tumor cells which lack MHC class I or MHC class II molecules, or which fail to reexpress sufficient amounts of MHC class I or
- 10 MHC class II molecules, can be transfected with nucleic acid encoding all or a portion of (e.g., a cytoplasmic-domain truncated portion) of an MHC class I α chain protein and β_2 microglobulin protein or an MHC class II α chain protein and an MHC class II β chain protein to thereby express MHC class I or MHC class II proteins on the cell surface. Expression of the appropriate class I or class II MHC in conjunction with a
- 15 peptide having the activity of a B lymphocyte antigen (e.g., B7-1, B7-2, B7-3) induces a T cell mediated immune response against the transfected tumor cell. Optionally, a gene encoding an antisense construct which blocks expression of an MHC class II associated protein, such as the invariant chain, can also be cotransfected with a DNA encoding a peptide having the activity of a B lymphocyte antigen to promote
- 20 presentation of tumor associated antigens and induce tumor specific immunity. Thus, the induction of a T cell mediated immune response in a human subject may be sufficient to overcome tumor-specific tolerance in the subject.

The activity of a protein of the invention may, among other means, be measured by the following methods:

- 25 Suitable assays for thymocyte or splenocyte cytotoxicity include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Herrmann et al., Proc.
- 30 Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J.

Immunol. 137:3494-3500, 1986; Bowman et al., J. Virology 61:1992-1998; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnoli et al., Cellular Immunology 133:327-341, 1991; Brown et al., J. Immunol. 153:3079-3092, 1994.

Assays for T-cell-dependent immunoglobulin responses and isotype
 5 switching (which will identify, among others, proteins that modulate T-cell
 dependent antibody responses and that affect Th1/Th2 profiles) include, without
 limitation, those described in: Maliszewski, J. Immunol. 144:3028-3033, 1990; and
 Assays for B cell function: *In vitro* antibody production, Mond, J.J. and Brunswick,
 M. In *Current Protocols in Immunology*, J.E.e.a. Coligan eds. Vol 1 pp. 3.8.1-3.8.16, John
 10 Wiley and Sons, Toronto. 1994.

Mixed lymphocyte reaction (MLR) assays (which will identify, among others,
 proteins that generate predominantly Th1 and CTL responses) include, without
 limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan,
 A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing
 15 Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte
 Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., J.
 Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnoli
 et al., J. Immunol. 149:3778-3783, 1992.

Dendritic cell-dependent assays (which will identify, among others, proteins
 20 expressed by dendritic cells that activate naive T-cells) include, without limitation,
 those described in: Guery et al., J. Immunol. 134:536-544, 1995; Inaba et al., Journal of
 Experimental Medicine 173:549-559, 1991; Macatonia et al., Journal of Immunology
 154:5071-5079, 1995; Porgador et al., Journal of Experimental Medicine 182:255-260,
 1995; Nair et al., Journal of Virology 67:4062-4069, 1993; Huang et al., Science
 25 264:961-965, 1994; Macatonia et al., Journal of Experimental Medicine 169:1255-1264,
 1989; Bhardwaj et al., Journal of Clinical Investigation 94:797-807, 1994; and Inaba et
 al., Journal of Experimental Medicine 172:631-640, 1990.

Assays for lymphocyte survival/apoptosis (which will identify, among others,
 proteins that prevent apoptosis after superantigen induction and proteins that
 30 regulate lymphocyte homeostasis) include, without limitation, those described in:
 Darzynkiewicz et al., Cytometry 13:795-808, 1992; Gorczyca et al., Leukemia
 7:659-670, 1993; Gorczyca et al., Cancer Research 53:1945-1951, 1993; Itoh et al., Cell
 66:233-243, 1991; Zacharchuk, Journal of Immunology 145:4037-4045, 1990; Zamai et

al., Cytometry 14:891-897, 1993; Gorczyca et al., International Journal of Oncology 1:639-648, 1992.

Assays for proteins that influence early steps of T-cell commitment and development include, without limitation, those described in: Antica et al., Blood 84:111-117, 1994; Fine et al., Cellular Immunology 155:111-122, 1994; Galy et al., Blood 85:2770-2778, 1995; Toki et al., Proc. Nat. Acad. Sci. USA 88:7548-7551, 1991.

Hematopoiesis Regulating Activity

A protein of the present invention may be useful in regulation of hematopoiesis and, consequently, in the treatment of myeloid or lymphoid cell deficiencies. Even marginal biological activity in support of colony forming cells or of factor-dependent cell lines indicates involvement in regulating hematopoiesis, e.g. in supporting the growth and proliferation of erythroid progenitor cells alone or in combination with other cytokines, thereby indicating utility, for example, in treating various anemias or for use in conjunction with irradiation/chemotherapy to stimulate the production of erythroid precursors and/or erythroid cells; in supporting the growth and proliferation of myeloid cells such as granulocytes and monocytes/macrophages (i.e., traditional CSF activity) useful, for example, in conjunction with chemotherapy to prevent or treat consequent myelo-suppression; in supporting the growth and proliferation of megakaryocytes and consequently of platelets thereby allowing prevention or treatment of various platelet disorders such as thrombocytopenia, and generally for use in place of or complimentary to platelet transfusions; and/or in supporting the growth and proliferation of hematopoietic stem cells which are capable of maturing to any and all of the above-mentioned hematopoietic cells and therefore find therapeutic utility in various stem cell disorders (such as those usually treated with transplantation, including, without limitation, aplastic anemia and paroxysmal nocturnal hemoglobinuria), as well as in repopulating the stem cell compartment post irradiation/chemotherapy, either *in-vivo* or *ex-vivo* (i.e., in conjunction with bone marrow transplantation or with peripheral progenitor cell transplantation (homologous or heterologous)) as normal cells or genetically manipulated for gene therapy.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for proliferation and differentiation of various hematopoietic lines are cited above.

Assays for embryonic stem cell differentiation (which will identify, among others, proteins that influence embryonic differentiation hematopoiesis) include, without limitation, those described in: Johansson et al. *Cellular Biology* 15:141-151, 1995; Keller et al., *Molecular and Cellular Biology* 13:473-486, 1993; McClanahan et al., *Blood* 81:2903-2915, 1993.

Assays for stem cell survival and differentiation (which will identify, among others, proteins that regulate lympho-hematopoiesis) include, without limitation, those described in: Methylcellulose colony forming assays, Freshney, M.G. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 265-268, Wiley-Liss, Inc., New York, NY. 1994; Hirayama et al., *Proc. Natl. Acad. Sci. USA* 89:5907-5911, 1992; Primitive hematopoietic colony forming cells with high proliferative potential, McNiece, I.K. and Briddell, R.A. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 23-39, Wiley-Liss, Inc., New York, NY. 1994; Neben et al., *Experimental Hematology* 22:353-359, 1994; Cobblestone area forming cell assay, Ploemacher, R.E. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 1-21, Wiley-Liss, Inc., New York, NY. 1994; Long term bone marrow cultures in the presence of stromal cells, Spooncer, E., Dexter, M. and Allen, T. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 163-179, Wiley-Liss, Inc., New York, NY. 1994; Long term culture initiating cell assay, Sutherland, H.J. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 139-162, Wiley-Liss, Inc., New York, NY. 1994.

Tissue Growth Activity

A protein of the present invention also may have utility in compositions used for bone, cartilage, tendon, ligament and/or nerve tissue growth or regeneration, as well as for wound healing and tissue repair and replacement, and in the treatment of burns, incisions and ulcers.

A protein of the present invention, which induces cartilage and/or bone growth in circumstances where bone is not normally formed, has application in the healing of bone fractures and cartilage damage or defects in humans and other animals. Such a preparation employing a protein of the invention may have prophylactic use in closed as well as open fracture reduction and also in the improved fixation of artificial joints. *De novo* bone formation induced by an

osteogenic agent contributes to the repair of congenital, trauma induced, or oncologic resection induced craniofacial defects, and also is useful in cosmetic plastic surgery.

A protein of this invention may also be used in the treatment of periodontal disease, and in other tooth repair processes. Such agents may provide an environment to attract bone-forming cells, stimulate growth of bone-forming cells or induce differentiation of progenitors of bone-forming cells. A protein of the invention may also be useful in the treatment of osteoporosis or osteoarthritis, such as through stimulation of bone and/or cartilage repair or by blocking inflammation or processes of tissue destruction (collagenase activity, osteoclast activity, etc.) mediated by inflammatory processes.

Another category of tissue regeneration activity that may be attributable to the protein of the present invention is tendon/ligament formation. A protein of the present invention, which induces tendon/ligament-like tissue or other tissue formation in circumstances where such tissue is not normally formed, has application in the healing of tendon or ligament tears, deformities and other tendon or ligament defects in humans and other animals. Such a preparation employing a tendon/ligament-like tissue inducing protein may have prophylactic use in preventing damage to tendon or ligament tissue, as well as use in the improved fixation of tendon or ligament to bone or other tissues, and in repairing defects to tendon or ligament tissue. De novo tendon/ligament-like tissue formation induced by a composition of the present invention contributes to the repair of congenital, trauma induced, or other tendon or ligament defects of other origin, and is also useful in cosmetic plastic surgery for attachment or repair of tendons or ligaments. The compositions of the present invention may provide an environment to attract tendon- or ligament-forming cells, stimulate growth of tendon- or ligament-forming cells, induce differentiation of progenitors of tendon- or ligament-forming cells, or induce growth of tendon/ligament cells or progenitors *ex vivo* for return *in vivo* to effect tissue repair. The compositions of the invention may also be useful in the treatment of tendinitis, carpal tunnel syndrome and other tendon or ligament defects. The compositions may also include an appropriate matrix and/or sequestering agent as a carrier as is well known in the art.

The protein of the present invention may also be useful for proliferation of neural cells and for regeneration of nerve and brain tissue, *i.e.* for the treatment of central and peripheral nervous system diseases and neuropathies, as well as

mechanical and traumatic disorders, which involve degeneration, death or trauma to neural cells or nerve tissue. More specifically, a protein may be used in the treatment of diseases of the peripheral nervous system, such as peripheral nerve injuries, peripheral neuropathy and localized neuropathies, and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome. Further conditions which may be treated in accordance with the present invention include mechanical and traumatic disorders, such as spinal cord disorders, head trauma and cerebrovascular diseases such as stroke. Peripheral neuropathies resulting from chemotherapy or other medical therapies may also be treatable using a protein of the invention.

Proteins of the invention may also be useful to promote better or faster closure of non-healing wounds, including without limitation pressure ulcers, ulcers associated with vascular insufficiency, surgical and traumatic wounds, and the like.

It is expected that a protein of the present invention may also exhibit activity for generation or regeneration of other tissues, such as organs (including, for example, pancreas, liver, intestine, kidney, skin, endothelium), muscle (smooth, skeletal or cardiac) and vascular (including vascular endothelium) tissue, or for promoting the growth of cells comprising such tissues. Part of the desired effects may be by inhibition or modulation of fibrotic scarring to allow normal tissue to regenerate. A protein of the invention may also exhibit angiogenic activity.

A protein of the present invention may also be useful for gut protection or regeneration and treatment of lung or liver fibrosis, reperfusion injury in various tissues, and conditions resulting from systemic cytokine damage.

A protein of the present invention may also be useful for promoting or inhibiting differentiation of tissues described above from precursor tissues or cells; or for inhibiting the growth of tissues described above.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for tissue generation activity include, without limitation, those described in: International Patent Publication No. WO95/16035 (bone, cartilage, tendon); International Patent Publication No. WO95/05846 (nerve, neuronal); International Patent Publication No. WO91/07491 (skin, endothelium).

Assays for wound healing activity include, without limitation, those described in: Winter, Epidermal Wound Healing, pps. 71-112 (Maibach, HI and Rovee, DT,

eds.), Year Book Medical Publishers, Inc., Chicago, as modified by Eaglstein and Mertz, J. Invest. Dermatol 71:382-84 (1978).

Activin/Inhibin Activity

5 A protein of the present invention may also exhibit activin- or inhibin-related activities. Inhibins are characterized by their ability to inhibit the release of follicle stimulating hormone (FSH), while activins are characterized by their ability to stimulate the release of follicle stimulating hormone (FSH). Thus, a protein of the present invention, alone or in heterodimers with a member of the inhibin α family,
10 may be useful as a contraceptive based on the ability of inhibins to decrease fertility in female mammals and decrease spermatogenesis in male mammals. Administration of sufficient amounts of other inhibins can induce infertility in these mammals. Alternatively, the protein of the invention, as a homodimer or as a heterodimer with other protein subunits of the inhibin- β group, may be useful as a
15 fertility inducing therapeutic, based upon the ability of activin molecules in stimulating FSH release from cells of the anterior pituitary. See, for example, United States Patent 4,798,885. A protein of the invention may also be useful for advancement of the onset of fertility in sexually immature mammals, so as to increase the lifetime reproductive performance of domestic animals such as cows, sheep and
20 pigs.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for activin/inhibin activity include, without limitation, those described in: Vale et al., Endocrinology 91:562-572, 1972; Ling et al., Nature 321:779-782, 1986;
25 Vale et al., Nature 321:776-779, 1986; Mason et al., Nature 318:659-663, 1985; Forage et al., Proc. Natl. Acad. Sci. USA 83:3091-3095, 1986.

Chemotactic/Chemokinetic Activity

A protein of the present invention may have chemotactic or chemokinetic
30 activity (e.g., act as a chemokine) for mammalian cells, including, for example, monocytes, fibroblasts, neutrophils, T-cells, mast cells, eosinophils, epithelial and/or endothelial cells. Chemotactic and chemokinetic proteins can be used to mobilize or attract a desired cell population to a desired site of action. Chemotactic or chemokinetic proteins provide particular advantages in treatment of wounds and

other trauma to tissues, as well as in treatment of localized infections. For example, attraction of lymphocytes, monocytes or neutrophils to tumors or sites of infection may result in improved immune responses against the tumor or infecting agent.

A protein or peptide has chemotactic activity for a particular cell population if it can stimulate, directly or indirectly, the directed orientation or movement of such cell population. Preferably, the protein or peptide has the ability to directly stimulate directed movement of cells. Whether a particular protein has chemotactic activity for a population of cells can be readily determined by employing such protein or peptide in any known assay for cell chemotaxis.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for chemotactic activity (which will identify proteins that induce or prevent chemotaxis) consist of assays that measure the ability of a protein to induce the migration of cells across a membrane as well as the ability of a protein to induce the adhesion of one cell population to another cell population. Suitable assays for movement and adhesion include, without limitation, those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 6.12, Measurement of alpha and beta Chemokines 6.12.1-6.12.28; Taub et al. J. Clin. Invest. 95:1370-1376, 1995; Lind et al. APMIS 103:140-146, 1995; Muller et al. Eur. J. Immunol. 25: 1744-1748; Gruber et al. J. of Immunol. 152:5860-5867, 1994; Johnston et al. J. of Immunol. 153: 1762-1768, 1994.

Hemostatic and Thrombolytic Activity

A protein of the invention may also exhibit hemostatic or thrombolytic activity. As a result, such a protein is expected to be useful in treatment of various coagulation disorders (including hereditary disorders, such as hemophilias) or to enhance coagulation and other hemostatic events in treating wounds resulting from trauma, surgery or other causes. A protein of the invention may also be useful for dissolving or inhibiting formation of thromboses and for treatment and prevention of conditions resulting therefrom (such as, for example, infarction of cardiac and central nervous system vessels (e.g., stroke).

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assay for hemostatic and thrombolytic activity include, without limitation, those described in: Linet et al., J. Clin. Pharmacol. 26:131-140, 1986; Burdick et al., Thrombosis Res. 45:413-419, 1987; Humphrey et al., Fibrinolysis 5:71-79 (1991); Schaub, Prostaglandins 35:467-474, 1988.

5

Receptor/Ligand Activity

A protein of the present invention may also demonstrate activity as receptors, receptor ligands or inhibitors or agonists of receptor/ligand interactions. Examples of such receptors and ligands include, without limitation, cytokine receptors and their
10 ligands, receptor kinases and their ligands, receptor phosphatases and their ligands, receptors involved in cell-cell interactions and their ligands (including without limitation, cellular adhesion molecules (such as selectins, integrins and their ligands) and receptor/ligand pairs involved in antigen presentation, antigen recognition and development of cellular and humoral immune responses). Receptors and ligands are
15 also useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. A protein of the present invention (including, without limitation, fragments of receptors and ligands) may themselves be useful as inhibitors of receptor/ligand interactions.

The activity of a protein of the invention may, among other means, be
20 measured by the following methods:

Suitable assays for receptor-ligand activity include without limitation those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 7.28, Measurement of Cellular Adhesion under static
25 conditions 7.28.1-7.28.22), Takai et al., Proc. Natl. Acad. Sci. USA 84:6864-6868, 1987; Bierer et al., J. Exp. Med. 168:1145-1156, 1988; Rosenstein et al., J. Exp. Med. 169:149-160 1989; Stoltenborg et al., J. Immunol. Methods 175:59-68, 1994; Stitt et al., Cell 80:661-670, 1995.

Anti-Inflammatory Activity

30 Proteins of the present invention may also exhibit anti-inflammatory activity. The anti-inflammatory activity may be achieved by providing a stimulus to cells involved in the inflammatory response, by inhibiting or promoting cell-cell interactions (such as, for example, cell adhesion), by inhibiting or promoting

chemotaxis of cells involved in the inflammatory process, inhibiting or promoting cell extravasation, or by stimulating or suppressing production of other factors which more directly inhibit or promote an inflammatory response. Proteins exhibiting such activities can be used to treat inflammatory conditions including chronic or acute
5 conditions), including without limitation inflammation associated with infection (such as septic shock, sepsis or systemic inflammatory response syndrome (SIRS)), ischemia-reperfusion injury, endotoxin lethality, arthritis, complement-mediated hyperacute rejection, nephritis, cytokine or chemokine-induced lung injury, inflammatory bowel disease, Crohn's disease or resulting from over production of
10 cytokines such as TNF or IL-1. Proteins of the invention may also be useful to treat anaphylaxis and hypersensitivity to an antigenic substance or material.

Tumor Inhibition Activity

In addition to the activities described above for immunological treatment or
15 prevention of tumors, a protein of the invention may exhibit other anti-tumor activities. A protein may inhibit tumor growth directly or indirectly (such as, for example, via ADCC). A protein may exhibit its tumor inhibitory activity by acting on tumor tissue or tumor precursor tissue, by inhibiting formation of tissues necessary to support tumor growth (such as, for example, by inhibiting angiogenesis),
20 by causing production of other factors, agents or cell types which inhibit tumor growth, or by suppressing, eliminating or inhibiting factors, agents or cell types which promote tumor growth.

25 Other Activities

A protein of the invention may also exhibit one or more of the following additional activities or effects: inhibiting the growth, infection or function of, or killing, infectious agents, including, without limitation, bacteria, viruses, fungi and other parasites; effecting (suppressing or enhancing) bodily characteristics, including,
30 without limitation, height, weight, hair color, eye color, skin, fat to lean ratio or other tissue pigmentation, or organ or body part size or shape (such as, for example, breast augmentation or diminution, change in bone form or shape); effecting biorhythms or circadian cycles or rhythms; effecting the fertility of male or female subjects; effecting the metabolism, catabolism, anabolism, processing, utilization, storage or elimination

of dietary fat, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional factors or component(s); effecting behavioral characteristics, including, without limitation, appetite, libido, stress, cognition (including cognitive disorders), depression (including depressive disorders) and violent behaviors; providing
5 analgesic effects or other pain reducing effects; promoting differentiation and growth of embryonic stem cells in lineages other than hematopoietic lineages; hormonal or endocrine activity; in the case of enzymes, correcting deficiencies of the enzyme and treating deficiency-related diseases; treatment of hyperproliferative disorders (such as, for example, psoriasis); immunoglobulin-like activity (such as, for example, the
10 ability to bind antigens or complement); and the ability to act as an antigen in a vaccine composition to raise an immune response against such protein or another material or entity which is cross-reactive with such protein.

15

ADMINISTRATION AND DOSING

A protein of the present invention (from whatever source derived, including without limitation from recombinant and non-recombinant sources) may be used in a pharmaceutical composition when combined with a pharmaceutically acceptable carrier. Such a composition may also contain (in addition to protein and a carrier) diluents, fillers, salts, buffers, stabilizers, solubilizers, and other materials well known in the art. The term "pharmaceutically acceptable" means a non-toxic material that does not interfere with the effectiveness of the biological activity of the active ingredient(s). The characteristics of the carrier will depend on the route of administration. The pharmaceutical composition of the invention may also contain cytokines, lymphokines, or other hematopoietic factors such as M-CSF, GM-CSF, TNF, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IFN, TNF0, TNF1, TNF2, G-CSF, Meg-CSF, thrombopoietin, stem cell factor, and erythropoietin. The pharmaceutical composition may further contain other agents which either enhance the activity of the protein or compliment its activity or use in treatment. Such additional factors and/or agents may be included in the pharmaceutical composition to produce a synergistic effect with protein of the invention, or to minimize side effects. Conversely, protein of the present invention may be included in formulations of the particular cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent to minimize side effects of the cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent.

A protein of the present invention may be active in multimers (e.g., heterodimers or homodimers) or complexes with itself or other proteins. As a result, pharmaceutical compositions of the invention may comprise a protein of the invention in such multimeric or complexed form.

The pharmaceutical composition of the invention may be in the form of a complex of the protein(s) of present invention along with protein or peptide antigens. The protein and/or peptide antigen will deliver a stimulatory signal to both B and T lymphocytes. B lymphocytes will respond to antigen through their surface immunoglobulin receptor. T lymphocytes will respond to antigen through the T cell receptor (TCR) following presentation of the antigen by MHC proteins. MHC and structurally related proteins including those encoded by class I and class II MHC genes on host cells will serve to present the peptide antigen(s) to T lymphocytes. The

antigen components could also be supplied as purified MHC-peptide complexes alone or with co-stimulatory molecules that can directly signal T cells. Alternatively antibodies able to bind surface immunoglobulin and other molecules on B cells as well as antibodies able to bind the TCR and other molecules on T cells can be
5 combined with the pharmaceutical composition of the invention.

The pharmaceutical composition of the invention may be in the form of a liposome in which protein of the present invention is combined, in addition to other pharmaceutically acceptable carriers, with amphipathic agents such as lipids which exist in aggregated form as micelles, insoluble monolayers, liquid crystals, or lamellar
10 layers in aqueous solution. Suitable lipids for liposomal formulation include, without limitation, monoglycerides, diglycerides, sulfatides, lysolecithin, phospholipids, saponin, bile acids, and the like. Preparation of such liposomal formulations is within the level of skill in the art, as disclosed, for example, in U.S. Patent No. 4,235,871; U.S. Patent No. 4,501,728; U.S. Patent No. 4,837,028; and U.S. Patent No. 4,737,323, all of
15 which are incorporated herein by reference.

As used herein, the term "therapeutically effective amount" means the total amount of each active component of the pharmaceutical composition or method that is sufficient to show a meaningful patient benefit, i.e., treatment, healing, prevention or amelioration of the relevant medical condition, or an increase in rate of treatment,
20 healing, prevention or amelioration of such conditions. When applied to an individual active ingredient, administered alone, the term refers to that ingredient alone. When applied to a combination, the term refers to combined amounts of the active ingredients that result in the therapeutic effect, whether administered in combination, serially or simultaneously.

25 In practicing the method of treatment or use of the present invention, a therapeutically effective amount of protein of the present invention is administered to a mammal having a condition to be treated. Protein of the present invention may be administered in accordance with the method of the invention either alone or in combination with other therapies such as treatments employing cytokines,
30 lymphokines or other hematopoietic factors. When co-administered with one or more cytokines, lymphokines or other hematopoietic factors, protein of the present invention may be administered either simultaneously with the cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors, or sequentially. If administered sequentially, the attending physician will decide on

the appropriate sequence of administering protein of the present invention in combination with cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors.

Administration of protein of the present invention used in the pharmaceutical composition or to practice the method of the present invention can be carried out in a variety of conventional ways, such as oral ingestion, inhalation, topical application or cutaneous, subcutaneous, intraperitoneal, parenteral or intravenous injection. Intravenous administration to the patient is preferred.

When a therapeutically effective amount of protein of the present invention is administered orally, protein of the present invention will be in the form of a tablet, capsule, powder, solution or elixir. When administered in tablet form, the pharmaceutical composition of the invention may additionally contain a solid carrier such as a gelatin or an adjuvant. The tablet, capsule, and powder contain from about 5 to 95% protein of the present invention, and preferably from about 25 to 90% protein of the present invention. When administered in liquid form, a liquid carrier such as water, petroleum, oils of animal or plant origin such as peanut oil, mineral oil, soybean oil, or sesame oil, or synthetic oils may be added. The liquid form of the pharmaceutical composition may further contain physiological saline solution, dextrose or other saccharide solution, or glycols such as ethylene glycol, propylene glycol or polyethylene glycol. When administered in liquid form, the pharmaceutical composition contains from about 0.5 to 90% by weight of protein of the present invention, and preferably from about 1 to 50% protein of the present invention.

When a therapeutically effective amount of protein of the present invention is administered by intravenous, cutaneous or subcutaneous injection, protein of the present invention will be in the form of a pyrogen-free, parenterally acceptable aqueous solution. The preparation of such parenterally acceptable protein solutions, having due regard to pH, isotonicity, stability, and the like, is within the skill in the art. A preferred pharmaceutical composition for intravenous, cutaneous, or subcutaneous injection should contain, in addition to protein of the present invention, an isotonic vehicle such as Sodium Chloride Injection, Ringer's Injection, Dextrose Injection, Dextrose and Sodium Chloride Injection, Lactated Ringer's Injection, or other vehicle as known in the art. The pharmaceutical composition of the present invention may also contain stabilizers, preservatives, buffers, antioxidants, or other additives known to those of skill in the art.

The amount of protein of the present invention in the pharmaceutical composition of the present invention will depend upon the nature and severity of the condition being treated, and on the nature of prior treatments which the patient has undergone. Ultimately, the attending physician will decide the amount of protein of the present invention with which to treat each individual patient. Initially, the attending physician will administer low doses of protein of the present invention and observe the patient's response. Larger doses of protein of the present invention may be administered until the optimal therapeutic effect is obtained for the patient, and at that point the dosage is not increased further. It is contemplated that the various pharmaceutical compositions used to practice the method of the present invention should contain about 0.01 μ g to about 100 mg (preferably about 0.1mg to about 10 mg, more preferably about 0.1 μ g to about 1 mg) of protein of the present invention per kg body weight.

The duration of intravenous therapy using the pharmaceutical composition of the present invention will vary, depending on the severity of the disease being treated and the condition and potential idiosyncratic response of each individual patient. It is contemplated that the duration of each application of the protein of the present invention will be in the range of 12 to 24 hours of continuous intravenous administration. Ultimately the attending physician will decide on the appropriate duration of intravenous therapy using the pharmaceutical composition of the present invention.

Protein of the invention may also be used to immunize animals to obtain polyclonal and monoclonal antibodies which specifically react with the protein. Such antibodies may be obtained using either the entire protein or fragments thereof as an immunogen. The peptide immunogens additionally may contain a cysteine residue at the carboxyl terminus, and are conjugated to a hapten such as keyhole limpet hemocyanin (KLH). Methods for synthesizing such peptides are known in the art, for example, as in R.P. Merrifield, J. Amer.Chem.Soc. 85, 2149-2154 (1963); J.L. Krstenansky, *et al.*, FEBS Lett. 211, 10 (1987). Monoclonal antibodies binding to the protein of the invention may be useful diagnostic agents for the immunodetection of the protein. Neutralizing monoclonal antibodies binding to the protein may also be useful therapeutics for both conditions associated with the protein and also in the treatment of some forms of cancer where abnormal expression of the protein is involved. In the case of cancerous cells or leukemic cells, neutralizing monoclonal

antibodies against the protein may be useful in detecting and preventing the metastatic spread of the cancerous cells, which may be mediated by the protein.

For compositions of the present invention which are useful for bone, cartilage, tendon or ligament regeneration, the therapeutic method includes administering the composition topically, systematically, or locally as an implant or device. When administered, the therapeutic composition for use in this invention is, of course, in a pyrogen-free, physiologically acceptable form. Further, the composition may desirably be encapsulated or injected in a viscous form for delivery to the site of bone, cartilage or tissue damage. Topical administration may be suitable for wound healing and tissue repair. Therapeutically useful agents other than a protein of the invention which may also optionally be included in the composition as described above, may alternatively or additionally, be administered simultaneously or sequentially with the composition in the methods of the invention. Preferably for bone and/or cartilage formation, the composition would include a matrix capable of delivering the protein-containing composition to the site of bone and/or cartilage damage, providing a structure for the developing bone and cartilage and optimally capable of being resorbed into the body. Such matrices may be formed of materials presently in use for other implanted medical applications.

The choice of matrix material is based on biocompatibility, biodegradability, mechanical properties, cosmetic appearance and interface properties. The particular application of the compositions will define the appropriate formulation. Potential matrices for the compositions may be biodegradable and chemically defined calcium sulfate, tricalciumphosphate, hydroxyapatite, polylactic acid, polyglycolic acid and polyanhydrides. Other potential materials are biodegradable and biologically well-defined, such as bone or dermal collagen. Further matrices are comprised of pure proteins or extracellular matrix components. Other potential matrices are nonbiodegradable and chemically defined, such as sintered hydroxapatite, bioglass, aluminates, or other ceramics. Matrices may be comprised of combinations of any of the above mentioned types of material, such as polylactic acid and hydroxyapatite or collagen and tricalciumphosphate. The bioceramics may be altered in composition, such as in calcium-aluminate-phosphate and processing to alter pore size, particle size, particle shape, and biodegradability.

Presently preferred is a 50:50 (mole weight) copolymer of lactic acid and glycolic acid in the form of porous particles having diameters ranging from 150 to 800

microns. In some applications, it will be useful to utilize a sequestering agent, such as carboxymethyl cellulose or autologous blood clot, to prevent the protein compositions from disassociating from the matrix.

A preferred family of sequestering agents is cellulosic materials such as alkylcelluloses (including hydroxyalkylcelluloses), including methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxypropylmethylcellulose, and carboxymethylcellulose, the most preferred being cationic salts of carboxymethylcellulose (CMC). Other preferred sequestering agents include hyaluronic acid, sodium alginate, poly(ethylene glycol), polyoxyethylene oxide, carboxyvinyl polymer and poly(vinyl alcohol). The amount of sequestering agent useful herein is 0.5-20 wt%, preferably 1-10 wt% based on total formulation weight, which represents the amount necessary to prevent desorption of the protein from the polymer matrix and to provide appropriate handling of the composition, yet not so much that the progenitor cells are prevented from infiltrating the matrix, thereby providing the protein the opportunity to assist the osteogenic activity of the progenitor cells.

In further compositions, proteins of the invention may be combined with other agents beneficial to the treatment of the bone and/or cartilage defect, wound, or tissue in question. These agents include various growth factors such as epidermal growth factor (EGF), platelet derived growth factor (PDGF), transforming growth factors (TGF- α and TGF- β), and insulin-like growth factor (IGF).

The therapeutic compositions are also presently valuable for veterinary applications. Particularly domestic animals and thoroughbred horses, in addition to humans, are desired patients for such treatment with proteins of the present invention.

The dosage regimen of a protein-containing pharmaceutical composition to be used in tissue regeneration will be determined by the attending physician considering various factors which modify the action of the proteins, e.g., amount of tissue weight desired to be formed, the site of damage, the condition of the damaged tissue, the size of a wound, type of damaged tissue (e.g., bone), the patient's age, sex, and diet, the severity of any infection, time of administration and other clinical factors. The dosage may vary with the type of matrix used in the reconstitution and with inclusion of other proteins in the pharmaceutical composition. For example, the addition of other known growth factors, such as IGF I (insulin like growth factor I),

to the final composition, may also effect the dosage. Progress can be monitored by periodic assessment of tissue/bone growth and/or repair, for example, X-rays, histomorphometric determinations and tetracycline labeling.

Polynucleotides of the present invention can also be used for gene therapy.

- 5 Such polynucleotides can be introduced either *in vivo* or *ex vivo* into cells for expression in a mammalian subject. Polynucleotides of the invention may also be administered by other known methods for introduction of nucleic acid into a cell or organism (including, without limitation, in the form of viral vectors or naked DNA).

- 10 Cells may also be cultured *ex vivo* in the presence of proteins of the present invention in order to proliferate or to produce a desired effect on or activity in such cells. Treated cells can then be introduced *in vivo* for therapeutic purposes.

Patent and literature references cited herein are incorporated by reference as if fully set forth.

TABLE 3

<u>Sel.</u>	<u>Species</u>	<u>Stage</u>	<u>Tissue</u>	<u>Cell Type</u>	<u>Treatment</u>
PP	Human	Adult	Blood	LymphoblasticLeukemiaMOLT-4	None
PQ	Human	Adult	Tumor	ColorectalAdenocarcinomaSW480	None
PR	Human	Fetal	Kidney	N/A	None
PS	Human	Fetal	Kidney	N/A	None
PT	Human	Adult	Blood	LymphoblasticLeukemiaMOLT-4	None
PU	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
PV	Human	Adult	Brain	Cerebellum	None
PW	Human	Adult	Brain	Cerebellum	None
PX	Human	Adult	Brain	Cerebellum	None
PY	Human	Adult	Brain	Cerebellum	None
PZ	Human	Adult	Bone Marrow	N/A	None
Q	Mouse	Adult	Bone Marrow	N/A	5 fluoro-uracil
QA	Human	Adult	Cartilage	Chondrosarcoma HTB-94 line	None
QB	Human	Adult	Bladder	Carcinoma 5637	None
QC	Human	Adult	Neural	Neuroepithelioma HTB-10 line	None
QD	Human	Fetal	Embryo	FHs173 We HTB-158	None
QE	Human	Fetal	Liver	N/A	None
QF	Human	Adult	Bladder	Carcinoma 5637	None
QG	Human	Adult	Neural	Neuroepithelioma HTB-10 line	None
QH	Human	Fetal	Embryo	FHs173 We HTB-158	None
QL	Human	Fetal	Heart	18 weeks gestation	None
QM	Human	Adult	Blood	Histiocytic lymphoma U937	None
QN	Human	Adult	Cartilage	Chondrosarcoma HTB-94 line	None
QO	Human	Adult	Brain	Corpus Callosum	None
QR	Human	Adult	Brain	Subthalamic Nucleus	None
QS	Human	Fetal	Whole Embryo	N/A	None
QT	Human	Fetal	Kidney	N/A	None
QU	Human	Adult	Blood	ChronicMyelogenousLeukemiaK562	None
QV	Human	Adult	Testis	Embryonal Carcinoma NT2D1	RA for 23 days
QX	Human	Adult	Bone	Ewing's Sarcoma RD-ES	None
QY	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
QZ	Human	Adult	Brain	Caudate Nucleus	None
RA	Human	Adult	Brain	Substantia Nigra	None
RB	Human	Adult	Kidney	293 embryonal carcinoma line	None

RC	Human	Adult	Kidney	293 embryonal carcinoma line	None
RD	Human	Adult	Kidney	293 embryonal carcinoma line	None
RE	Human	Adult	Brain	Amygdala	None
RF	Human	Adult	Bone Marrow	N/A	None
RG	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
RH	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
RI	Human	Adult	Brain	Subthalamic Nucleus	None
RJ	Human	Adult	Neural	Neuroepithelioma HTB-10 line	None
RK	Human	Adult	Tumor	Colorectal Adenocarcinoma SW480	None
RL	Human	Fetal	Kidney	293 cell line	None
RM	Human	N/A	Brain	Neuroectodermal Tumor CRL-2060	None
RN	Human	Adult	Blood	Lymphoblastic Leukemia MOLT-4	None
RP	Human	Adult	Brain	Thalamus	None
RQ	Human	Fetal	Kidney	N/A	None
RR	Human	Fetal	Kidney	N/A	None
RS	Human	Adult	Tumor	Colorectal Adenocarcinoma SW480	None
RT	Human	N/A	Brain	Neuroectodermal Tumor CRL-2060	None
RU	Human	Adult	Adrenal corte	Carcinoma SW-13	None
RV	Human	Adult	Brain	Cerebellum	None
RW	Human	N/A	Brain	Neuroectodermal Tumor CRL-2060	None
RX	Human	N/A	Nasal Epithel	squamous cell carcinoma CCL-30	None
RY	Human	Adult	Ovary	Ovarian Adenocarcinoma HTB-161	None
RZ	Human	Adult	Brain	Cerebellum	None
S	Human	Adult	Neural	Glioblastoma line TG-1	N/A
SA	Human	Fetal	Heart	18 weeks gestation	None
SB	Human	Fetal	Whole Embryo	N/A	None
SC	Human	Fetal	Kidney	293 cell line	None
SD	Human	Fetal	Kidney	N/A	None
SE	Human	Fetal	Kidney	N/A	None
SF	Human	Adult	Bladder	Carcinoma 5637	None
SG	Human	Fetal	Heart	18 weeks gestation	None
T	Mouse	Fetal	Brain	N/A	None
V	Mouse	Fetal	Brain	N/A	None
WA	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WC	Xenopus	11-12	Embryo	Fetal Vent. Mesoderm/Ectoderm	N/A
WF	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WG	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None

WH	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WI	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WJ	Xenopus	11-12	Embryo	Fetal Vent. Mesoderm/Ectoderm	N/A
WK	Xenopus	11-12	Embryo	Fetal Vent. Mesoderm/Ectoderm	N/A
WL	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
Z	Rat	Fetal	Pancreas	N/A	None

Table 3 Cell Type and Treatment Key:

RA: retinoic acid

What is claimed is:

1. An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID

NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ

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or a complement of said sequence.

2. An isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157,

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or a complement of said sequence.

3. An isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157,

SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID

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or a complement of said sequence.

4. An isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157,

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or to a complement of said sequence.

5. An isolated protein encoded by an isolated polynucleotide of claim 1.

6. An isolated protein encoded by an isolated polynucleotide of claim 2.
7. An isolated protein encoded by an isolated polynucleotide of claim 3.
8. An isolated protein encoded by an isolated polynucleotide of claim 4.

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<110> Jacobs, Kenneth
 McCoy, John M.
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 Evans, Cheryl
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 Treacy, Maurice
 Genetics Institute, Inc.

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ccacgctgga gcagccgcag gtgcccgca aggtgcgaca acctgaaggt cccgaaagca 180
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ccgaagcgcc tttcccaact tgggtggctt cctgggata actgtgatga aggaaaggac 180
cctgcagtga tcaaaagcct cagatccaa cctgacccca ttgtgggttc tggagatgta 240
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gcagcccgtc tgcctcctct gggcatcctt ctctgctgct tgcctcctgccc cgtccctgcc 180
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<212> DNA

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aagcttgaga attatggaga ataactatcc tggtagaaaa aaacagaaat aaaatatggt 480
gatagttttg tttcagggtt tttacttgtt ttctcttttg tctttggaag gtctgtttgt 540
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<210> 22

<211> 283

<212> DNA

<213> Homo sapiens

<400> 22

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gaattcggcc aaagaggcct agttagaatg taaggtatat cattctaaag atagagtaaa 60
aagaaaacaa aaccaaaagt tattaaaatt gttgtccggg ttactttaac ttagttttgc 120
atagttctag tgcagctgaa attgaaaagt tatttccctt tagctgtgtt attatagagc 180

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agaaattctg tttttaaaaa ttagcctaag atatacttgt ttttgtaaag aaaaatattt 240
aatgttgaac aaaataaatt ggagttggag tagaatactc gag 283

<210> 23
<211> 314
<212> DNA
<213> Homo sapiens

<400> 23
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aagatatagt taaatacaac acatacatga ggaatactag taaacaacag cagcagaaac 120
atcagtatca gcagcgctgc cagcaggaga atatgcagcg ccagagccga ggagaacccc 180
cgctccctga ggaggacctg tccaaactct tcaaaccacc acagccgcct gccaggatgg 240
actcgctgct cattgcaggc cagataaaca cttactgcca gaacatcaag gagttcactg 300
cccaaaaact cgag 314

<210> 24
<211> 284
<212> DNA
<213> Homo sapiens

<400> 24
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agcacatgag catctgcggg ctctatcctc ttatagtagt tcttcttctg ctcaataatc 180
tcaaagccaa acttcctgta gaagtcaatt gccgactcat tgctgatctg gacatgcaga 240
taaatgttgt caaaagtacc atctttttca cagatgttct cgag 284

<210> 25
<211> 161
<212> DNA
<213> Homo sapiens

<400> 25
gaattcggcc aaagaggcct agtaggtgaa aatttataat atcaactgca cttaaaatat 60
ttgccagcca gcctcattca tcacatattt cctaaataag aataatcagg cagttttgac 120
agaaaaataa aatgtgtccc aaaagaagtc cgtacctega g 161

<210> 26
<211> 672
<212> DNA
<213> Homo sapiens

<400> 26
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ttaggagagg aagacagagt ttccaagtta ggagaggaag acagagttcc aagtgaatgc 120
catccacata ccaccttccc agaccccata gctcacaggc ccccataggt catcagctct 180
tactttctcc ctctggaaag gaatggaaga agaggtgaaa tgttacttca tttggaagcc 240
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acctacctac gtcagcgatg gcctgcttga tatttcagag aagagggacc cctgaggact 360
tcacctcaga ttcttggaaag aatgtgattc agtccacagt agcctttcag agactgtata 420
ctcaagccag accaaagtat ccctcttccc attcagagcc agtgaggacc tgtctctgtc 480
cctgtcctc ctgtgccctc tgtgtgcggt gtccttccc atctctctgt ggcttacatg 540
gcttcaagct ccacctcaaa gcgtctctga ccaggcattg ccagcgatct ccccttcaca 600
atggtctagc tcctatggtc tgtgtctcct tatttcttct gaccttcttt ctttcacccc 660
tgtgcaactg ag 672

<210> 27
<211> 144
<212> DNA

<213> Homo sapiens

<400> 27

gaattcgcgg ccgcgtcgac aagagccact ggcctgtaat tgtttgatat atttggtaaa 60
actctttgta taatgtcagg ttcaaggaca cactgttcca caatttcccg taagttgggg 120
ttttccattg cagctaccct cgag 144

<210> 28

<211> 250

<212> DNA

<213> Homo sapiens

<400> 28

gaattcgcgg ccgcgtcgac cctaaacccat ctacttccca gtcttctttc tagatttatt 60
cctttctttc ctctctctcc agtttaggtg gagctttttc aattcttaga atataccaag 120
tttactccct accttaaggc cttcacattt gttgtctcaa cctgaatgct cttacattag 180
atacagtatg gtttgcctct ttatttcttt catatttctc ttcataacc ttgtccccag 240
aaagctcgag 250

<210> 29

<211> 277

<212> DNA

<213> Homo sapiens

<400> 29

gaattcgcgg ccgcgtcgac cctcaggac tatacaacag aaacaacaaa cacaagtga 60
aaaccctctg aacttagcag acctagatat gttttcttca gtttaattgca gcagcgagaa 120
accattgtct ttttcagctg tgtttagcac atcaaaatca gtttctacac cacagtcaac 180
aggttctgct gctactatga cagcattggc agcaacaaaa acttctagtt tggctgatga 240
ttttggagaa ttcagccttt ttggggaatc actcgag 277

<210> 30

<211> 258

<212> DNA

<213> Homo sapiens

<400> 30

gaattcgcgg ccgcgtcgac tgtgaatgtt aatattcctg aaaagactac agcactgaat 60
aatatggatg gcaagaatgt taaagcaaaa ttggatcatg ttcaatttgc agaatttaag 120
attgacatgg attctaaatt tgaaaatagc aacaaagatt taaaggaaga attgtgccct 180
ggaaatctaa gtctagttag tacaaggcaa cacagttcag cacattcaaa tcaagataaa 240
aaagacgatg agctcgag 258

<210> 31

<211> 308

<212> DNA

<213> Homo sapiens

<400> 31

gaattcgcgg ccgcgtcgac gtctgcagtc caattaattt ctgaagtatt tctaaagaga 60
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atatttcatt ccttagtaat tcttgaggcg actgtgaaag gaggatggaa gaaatccagt 180
acttttactc tttacattgg acaagttatt tgtggagata attgctcaat ttcagtatga 240
gtgcagtgat tttgatgcag ttgtgttttt cttttttatt cttttttgga gaaggctctc 300
agctcgag 308

<210> 32

<211> 338

<212> DNA

<213> Homo sapiens

<400> 32

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gaattcgcgg cgcgctcgac gtaaccaacc atttcagcat ctgggttget actagcctca 60
gcataatttta tttgctcaag attgccaatt tctccaactt tatttttctt cacttaaaaa 120
ggagaattaa gagtgcatt ccagtgtac tattggggtc tttgttattt ctggtttgtc 180
atcttggtgt ggtaaacatg gatgagagta tgtggacaaa agaatatgaa ggaaacgtga 240
gttgggagat caaattgagt gatccgacgc acgtttcaga tatgactgta accacgcttg 300
caaacttaat accctttact ctgtccctgt tactcgag 338

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<210> 33

<211> 217

<212> DNA

<213> Homo sapiens

<400> 33

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gaattcgcgg cgcgctcgac tttgggggga agtaaaaatt actctattat taaagtgtatt 60
gttacagcca ctgatctgta cattaataat ttttgaaatt attacaaata aattaaagct 120
tggtaaaatt gattgaaaaa acgttatggg ccaggcgcag tggctcatgc ctgtaatctc 180
aacagtttgg gaggccaaag caagcggatc actcgag 217

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<210> 34

<211> 395

<212> DNA

<213> Homo sapiens

<400> 34

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gaattcgcgg cgcgctcgac ctgaaatcga gccgatctcc attttctggg actatgacag 60
ttgatggaaa taaaaattca cctgctgaca catgtgtaga ggaagatgct acagttttgg 120
ctaaggacag agctgctaata aaggaccaag aactgattga aaatgaaagt tatagaacaa 180
aaaacaacca gaccatgaaa catgatgcta aaatgagata cctgagtgat gatgtggatg 240
acatttcctt gtcgtctttg tcatctcttg ataagaatga ttaagttaa gacttttagtg 300
atgattttat agatatagaa gactccaaca gaactagaat aactccagag gaaatgtctc 360
tcaaagaaga gaaacatgaa aatggggcac tcgag 395

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<210> 35

<211> 183

<212> DNA

<213> Homo sapiens

<400> 35

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gaattcgcgg cgcgctcgac gggagcaagg ataaaagaac aacaaaagac agaaaatttt 60
taatactagg gaaattagag catgtttgtg gacagaagga gaacaatcag aagacaggaa 120
gagaaaatag aaaataaaat agaagcacc aaaccgtcga ttgaattctg gcctgcactc 180
gag 183

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<210> 36

<211> 248

<212> DNA

<213> Homo sapiens

<400> 36

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gaattcgcgg cgcgctcgac gtttgaagtt cattgaactt tgtggatgtg taaattatgt 60
ttttcatcaa attgggcaag ttttagcca ttatttctcc taaatttttc tgctttttcg 120
tctgtacctt tggttactcc cattacacat atgtcagtat atttaattgt atccatact 180
tctctcatgc tctgttcatt tttctttatt cttttttctc tctctttctc agatggcata 240
aactcgag 248

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<210> 37

<211> 222

<212> DNA

<213> Homo sapiens

<400> 37

gaattcgcgg ccgcgtcgac cgagtcgggt gacaaagtga gacctgtgt ctaaaaagag 60
 agagagaaaa aaagctaagg ctattttcag gttaggtcag gcttagtaac aaaaactttt 120
 tgtgaaatgc ttcgatcatt gtttgccctg ctctaatatt cccttaaac ctcccgatc 180
 agacaggtgg tctttgaaga tgagttcaca gcctccctcg ag 222

<210> 38

<211> 264

<212> DNA

<213> Homo sapiens

<400> 38

gaattcgcgg ccgcgtcgac gtctggcctt cttaatctt ccatctgtac ccttttttag 60
 gtgagctcag atctgacctg tttttctgag ctgcagactt gtttatctaa ttgtctaatt 120
 gacatccact tggatgtctg atagtattcc cagatctaac attggccaaa tcgctctttt 180
 ttcccccaa atctcccttg atttctcctt taaaaccccc ttctcaaagc tatgtcctaa 240
 ctaaaattct taggagctct cgag 264

<210> 39

<211> 226

<212> DNA

<213> Homo sapiens

<400> 39

gaattcgcgg ccgcgtcgac cttacataaa ttccatact ccttttttat tctgacgtta 60
 tacaatgaag aaagcaaatg tgaattgtc atgtcatatg tgccctgtta tgtatgccta 120
 catacattgg gtatgtgaga ttgtggcggg ggggtgttcc cctagctttt tgtctataat 180
 ttctgatttt attgcaataa atttaaacca caacacagag ctcgag 226

<210> 40

<211> 257

<212> DNA

<213> Homo sapiens

<400> 40

gaattcgcgg ccgcgtcgac ctagtttatg agtttattct tctgctcgtt tttggagttt 60
 gtttttgttt ttctagtttt tttagggtcg aggtgaggtt gttaattgga cgtctatctc 120
 cttgggttag acgttttagt ctgtctagtc ctcttaacac tgtgtttgtc gcaaccaga 180
 ggttttggcc tgttttcatt ttttaacaaa tgattttgtt ttctgtcata attttcttgt 240
 ttacccaaaa cctcgag 257

<210> 41

<211> 220

<212> DNA

<213> Homo sapiens

<400> 41

gaattcgcgg ccgcgtcgac tgcaagtaag gactatggaa aatttcctaaa ccagattgga 60
 tcgttcagaa gccattcttc tgttgattct ttacactttc ctcccattag ccgaagaat 120
 tgagagccaa cctttccaaa tgcccctgc cccgttagca ggcaccaaag agtctatttc 180
 atttctgtgt gccagcttaa tactcaccag ggcactcgag 220

<210> 42

<211> 289

<212> DNA

<213> Homo sapiens

<400> 42

gaattcgcgg ccgcgtcgac gttactttgg caacaagttc ttttaccctt acccgtggta 60
 tttagaaaaa atcaaggtaa ctgtctgaat actttaatat cagcttgttt tgtgaattct 120

ctgaatactg tcaacactct tatctaagtt tgcctttatg atgcagtggc agcattttga 180
 attacttttc aaagaatact gttcatatgc attgtttttg tgtttcaaac taaatacagg 240
 cagttttgtg ccagctgtga tattgtgcat accatatgga cacctcgag 289

<210> 43
 <211> 252
 <212> DNA
 <213> Homo sapiens

<400> 43
 gaattcgcgg ccgcgtcgac tttaacttaa aaattggctg tcatctcaga atttaactta 60
 aatttataca aatatttttg tagtagttaa taggtatatt ggtagtaatt tggtagtttg 120
 gtacatttgg tagtaattaa taggtacatt ttctgcctgt gtagattgtt taagaaaaca 180
 gtgataatta tgcaaagaaa tgttcaaata actgtttggg tagtgatttt ggcttattgg 240
 gtcactctcg ag 252

<210> 44
 <211> 162
 <212> DNA
 <213> Homo sapiens

<400> 44
 gaattcgcgg ccgcgtcgac ctaagttcca cattttatct agattccact agttttccca 60
 ttaatgtcca ttctgttctt agaatccaat ccttttcctg tatgctatgg attatcagac 120
 ccctcacttg ggttctctctt acatcaccaa gatgtgctcg ag 162

<210> 45
 <211> 281
 <212> DNA
 <213> Homo sapiens

<400> 45
 gaattcgcgg ccgcgtcgac cttcttattt ccttgctgat gcatatctgc cgagtcttgg 60
 ttctgttttg ggcctcatgt ccagcaagtg atagtctcat taggagcgtg gtagaacata 120
 gcaagcctg gcatattggtt cctccctctg tctcccaaag tgctgggatt acaggcgtga 180
 gccactgcgc ctggctctgtt tcttcccgta tgtgtgccac ataccgtgag ccattcagat 240
 gcatgaaagc aaacttcctt ataaaaggcc agaagctcga g 281

<210> 46
 <211> 265
 <212> DNA
 <213> Homo sapiens

<400> 46
 gaattcgcgg ccgcgtcgac caccagacaa ctctatgagg gcagaaatta gatctatttt 60
 gctcatcatt gtatctccag agtccaacac aatgccccagc attggagtaa ggtatttaaa 120
 tattttaaaa aaattttttt tgagagacag ggtctccctc tgtcaccag gctgggggtg 180
 agtggcacc tcatggtcct ctctaacagc ctctggggct caagcagtca gaactacagg 240
 tatgtgctac cacaccgagc tcgag 265

<210> 47
 <211> 336
 <212> DNA
 <213> Homo sapiens

<400> 47
 gaattcgcgg ccgcgtcgac aaagtgttag aaaatcatgt tcttgtctct gagtaagagt 60
 caatcagagt aaatgcattt ctggagtgtt ttctgtgatg taaattatga tcattattta 120
 agaagtcaaa tcttgatctt gaagtgtctt ttatacagct ctctaataat taaaaatc 180
 cgaaagtcatt ttcttgaac acaagtggag tatgccaaat tttatatgaa tttttcagat 240

tatctaagct tccaggtttc ataattagaa gataatgaga gaattaatgg ggtttatatt 300
 tacattatct ctcaactatg tagcccgctt ctcgag 336

<210> 48
 <211> 703
 <212> DNA
 <213> Homo sapiens

<400> 48
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 agaaatcatg tgcaaatgg aaagcattaa agagatcagg aacaagaccc tgcagatgga 120
 gaagatcaag gctcgtttga aggctgagtt tgaggcactt gaggcagagg aaaggcacct 180
 gaaggaatac aagcaggaga tggaccttct gctacaggag aagatggccc atgtggagga 240
 actccgactg atccacgctg acatcaatgt gatggaaaac actatcaaac aatctgagaa 300
 tgacctaaac aagctgctag agtctacaag gaggctgcat gatgagtata agccactgaa 360
 agaacatgtg gatgccctgc gcatgactct gggcctgcag aggtccctg acttgtgtga 420
 agaagaggag aagctttcct tggattactt tgagaagcag aaagcagaat ggcagacaga 480
 acctcaggag cccccatcc ctgagtcctt ggcgctgca gccgctgccg cccaacagct 540
 ccaagtggct aggaagcagg atactcgga gacggccacc ttcaggcagc agccccacc 600
 tatgaaggcc tgcttgcac gtcaccagca aattcacgg aatgcaccta tatgccctct 660
 ttgcaaggcc aagagtcggt cccggaaccc caataaactc gag 703

<210> 49
 <211> 247
 <212> DNA
 <213> Homo sapiens

<400> 49
 gaattcgcgg ccgcgtcgac cagtcacatca gcatcacgta ctcatccctg cacatctcat 60
 ggaaggctgg acacctcttc tcaactacaag gcttcacctc ctctccggtg ccctcgagg 120
 ggtagccctg cgtgcccgtg gcctggcaca tgcggaagcg gcgctgccag cctgtgtcac 180
 acgtcttaga gcacaggctc cagcattcc atggcccca cttgctatca gtggccgggc 240
 actcgag 247

<210> 50
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 50
 gaattcgcgg ccgcgtcgac aaataatagc tattccatc tcaggatagc tggtagcta 60
 gcaaaagaat taacatttgc gatatttact tgcaaaactt actgaagcca tattcattat 120
 ctctcttgc accaaggctg ttgaccttaa ataaacatta agttgatttt gcacaacact 180
 gtatttgcgt gtgtgcatgt gcctgtttt gtgtgtgtat gtttgtggga aataattatg 240
 tttgtttccg catatattca tttttaatgc attctgtaac ttttctcgag 290

<210> 51
 <211> 417
 <212> DNA
 <213> Homo sapiens

<400> 51
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 tggaggctgt ggcggttttg ttttcttggc taaaatcggg ggagtgaagg gggccggcgc 120
 ggcgcgacac cgggtcccg aaacctgca cgacggggct ggactgacct gaaaaaatg 180
 tctggatttc tagagggtt gagatgtcga gaatgcattg actgggggga aaagcgcaat 240
 actattgctt ccattgctgc tgggtgacta ttttttacag gctggtggat tatcatagat 300
 gcagctgtta tttatccac catgaaagat ttcaacct cataccatgc ctgtggtgtt 360
 atagcaacca tagccttcc aatgattaat gcagtatcga atggacaagt cctcgag 417

<210> 52
 <211> 379
 <212> DNA
 <213> Homo sapiens

<400> 52
 gaattcgcgg ccgcgtcgac tgaagatgct gcggtggca ctaactgtga catctatgac 60
 cttttttatc atcgacaag ccctgaacc atatattgtt atcactggat ttgaagtcac 120
 cgttatctta tttttcatac ttttatatgt actcagactt gatcgattaa tgaagtgggt 180
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 atctgtgttg gcaactgatac cagaaaccac aacattgaca gttggtggag ggggtgttgc 300
 acttgtgaca gcagtatgct gtcttgccga cggggccctt atttaccgga agcttctgtt 360
 caatcccagc ggactcgag 379

<210> 53
 <211> 105
 <212> DNA
 <213> Homo sapiens

<400> 53
 gaattcgcgg ccgcgtcgac aagaagcgta tggactacta tgactctgaa caccatgaag 60
 actttgaatt tatttcagga acacgaatgc gcaaactcgc tcgag 105

<210> 54
 <211> 237
 <212> DNA
 <213> Homo sapiens

<400> 54
 gaattcgcgg ccgcgtcgac gttgatggtg agaatgatgg cagctgctgt ttgttgggca 60
 ccagctgtgg tcaggtaacag tgctaagcac tttaattaca ctgttaagtc accaggacag 120
 aaactccccc acaccagctc tgtaataggg gtgagtgttg gacataagca gggagttgac 180
 aagaagccaa gactaggctg ggcacagtgg ctacagcctg taattccagc cctcgag 237

<210> 55
 <211> 220
 <212> DNA
 <213> Homo sapiens

<400> 55
 gaattcgcgg ccgcgtcgac gaagaaagaa aaactagcaa acatttgaga aatttagcaa 60
 ctgttttttt ttaaataaag caatttgctc taataattat ttcctaatca tcttaaaata 120
 cgctgtcatt aacggcagag aaagctcttt atttcctttt gaattttaat actgggtaga 180
 aatataattt acaatgaaag tcagcaggaa agaactcgag 220

<210> 56
 <211> 247
 <212> DNA
 <213> Homo sapiens

<400> 56
 gaattcgcgg ccgcgtcgac caaaaataaa taagctcagg aataaagtga attggaagac 60
 agaaataatt tctgaaatga accagatata tgaggataat gataaagatg cacatgtcca 120
 agaaagctat acaaaagatc ttgattttta agtaataaaa tctaaacaaa aacttgaatg 180
 ccaagacatt atcaataaac actatatgga agtcaacagt aatgaaaagg aaagttgtaa 240
 tctcgag 247

<210> 57
 <211> 229
 <212> DNA

<213> Homo sapiens

<400> 57

gaattcgcg cgcgctcgac gtgtgttggg aaacactgtg ggctcaatga aaaacccctt 60
tcggcccagt cctttgcctc cacattccag cttggcgccc tcagccacac cactctggat 120
gagttccaag atcttgttgt actgtttctt atcaatctgg ggaccctgct cagtgggtggg 180
gtcaaaggga ctccccacta cgcgcctctt ggcccgtcc acactcgag 229

<210> 58

<211> 146

<212> DNA

<213> Homo sapiens

<400> 58

gaattcgcg cgcgctcgac tgaggagag attggtcagt ctgttcaaaa ttacagatag 60
gaagaagagt aagttctggg gttctcttgc acagtagggg aactatgggt aacaatattg 120
catatttcaa aacagctggc ctcgag 146

<210> 59

<211> 139

<212> DNA

<213> Homo sapiens

<400> 59

gaattcgcg cgcgctcgac cctgcacctt gtctgtctga caaacacctt cttatttgat 60
gctattcaag cctcacctcc tcttactctg cactccttcc tactttctac ttccagatga 120
aaataaccac ttctcgag 139

<210> 60

<211> 325

<212> DNA

<213> Homo sapiens

<400> 60

gaattcgcg cgcgctcgac cctttccgtt tgatttgtca ctgcttcaat caataacagc 60
cgctccagag tcagtagtca atgaatatat gaccaaatat caccaggact gttactcaat 120
gtgtgcccag cccttgccca tggctgggctc ccgtgtatct ggacactgta acgtgtgctg 180
tgtttgetcc ccttcccctt ccttctttgc cctttacttg tctttctggg gtttttctgt 240
ttgggttttg tttggttttt atttctccct ttgtgttcca aacatgaggg tctctctact 300
ggctctctta accatggtgc tcgag 325

<210> 61

<211> 241

<212> DNA

<213> Homo sapiens

<400> 61

gaattcgcg cgcgctcgac tcttattcct tcttgaaaat ttaagtgtt atgggtttat 60
atagttcagt tctttgagat ttttgaaaag agtattttca gtaataaacg tgccatctct 120
atctcttaaa catttattac aacaattgtt ttaaaataga aaaaataaaa tgcttctatt 180
ttaccttttt ttcatttcag aagcattatt ctgtttatta acagtgtccc atctctctga 240
g 241

<210> 62

<211> 392

<212> DNA

<213> Homo sapiens

<400> 62

gaattcgcg cgcgctcgac gcacgtggca ctggaggagc ggcgttttgc acccccaggc 60
ttcagggaag ttctcaatag aaaaccatt agttgtctca tatgactggg attaactctg 120

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acttaaaaaa aaaatcaagc cagaaacagt gtgttgagca agaaaggaaa aaagattcct 180
tattaaaagt tcaaacataa acagaaggct caggacctcc ttgactacct ctcttgccac 240
gtggcccagg agaaaccatg gctggcagtt taacagccac cctcctgctt ctgctctgtg 300
cattttgtgg atgcacatcc acgtttttct tttcttttga gacagggtct cactctgttg 360
cccaggctgg aatgcaatgg cgcgatctcg ag                                     392

```

<210> 63

<211> 293

<212> DNA

<213> Homo sapiens

<400> 63

```

gaattcgcgg ccgcgtcgac aggctccagt ttctgtatg cattggatgg aagtgcacgt 60
agaaagcagt gttctcacat cattttataa tgctgaggat gaatcaaate ttctcttacc 120
taaaactacct acactgccaa aaaactatag caacacctca aaaatattta gtgaagaaaa 180
ttctgatgaa attattaagc tcttgggaga cgtcaggctt aatattctcg tccttgaggg 240
aagctctgga tttattgagc tttatgctta tggaatgttt aaaattgctc gag          293

```

<210> 64

<211> 449

<212> DNA

<213> Homo sapiens

<400> 64

```

gaattcgcgg ccgcgtcgac ccccttccaa aagcaaaaag aagcctcgaa agtgaaatgt 60
atctggaagg tctgggcaga tcacacattg cttccccag tccttgtcct gacagaatgc 120
ccctaccatc acccaactgag tctaggcaca gctctccat ccctcctgtc tccagccctc 180
cggagcagaa agtgggtctt tatcgaagac aaactgaact tcaagacaaa agtgaatttt 240
cagatgtgga caagctagct ttaaggata atgaggagtt tgaatcatct tttgaatctg 300
cagggaacat gccaaaggcag ttggaaatgg gcgggcttcc tcctgccggg gatatgtctc 360
atgtggacgc tgcgtcagct gctgtgcccc tctcatatca gcacccaagt gtagatcaga 420
aacaattga agaacaaaag gaactcgag                                     449

```

<210> 65

<211> 247

<212> DNA

<213> Homo sapiens

<400> 65

```

gaattcgcgg ccgcgtcgac ggggctggag tataatagga gcggagagat agaaaagaga 60
ggcaaaggaa gatcacagcc atcacaaagc aatctaggca gaaagtata ggaaaaaaag 120
gagaaactat tcatttcaa ctattgtctg tatacacaaa cctctgaaaa tagccaatta 180
gtgttagatg ttctatcagg cgtggggaat ggggatgggt acaaaattca tcctcccagt 240
tctcgag                                     247

```

<210> 66

<211> 227

<212> DNA

<213> Homo sapiens

<400> 66

```

gaattcgcgg ccgcgtcgac cgcggccgag tcgacctgct ggcagggttt tttgtttta 60
tttgtttgct tatttttaaa ttaactgttt tgagctttga atacttaagg ctttagaggg 120
agaaccaat tttcaattat gttggctttt tataaagctt gagttatgta agatttaaatt 180
aaaagtttgc taccaagatg attgccttat tgaatagatc actcgag          227

```

<210> 67

<211> 384

<212> DNA

<213> Homo sapiens

<400> 67
 gaattcgcgg ccgcgtcgac tgacattcct gttggagact tacatccagg ggaacagctg 60
 gaaaaaatgt tgtatgttcg ctgtggaaca ggggggttcca gaatgtttct tgtatatgtt 120
 tcttacctga taaatacaac cgttgaagaa aaagaaattg tttgcaagtg tcacaaggat 180
 gaaactgtaa caattgaaac agtctttcca tttgatgttg cggttaaatt tgtttctacc 240
 aagtttgagc acctggaaaag ggtttatgct gacatccccct ttctgttgat gacggacctc 300
 ttaagtgcct caccctgggc cctcactatt gtttccagt agctccacct tgcctcatcc 360
 atgaccacag tggaccagct cgag 384

<210> 68
 <211> 302
 <212> DNA
 <213> Homo sapiens

<400> 68
 gaattcgcgg ccgcgtcgac ctaaaccgtc gattgaattc tagacctctc acccaagctc 60
 ctctctcctt gcagtgaaga cctccccctc cagtaacctt ttttctctgt gaaaaccctt 120
 caaccctctt tcaggacctc tctcaacccc atcttcccat ttgtgtccca ccagtcctct 180
 ccccaacctg ccaatatttc aataacccca cgtccaccag ttgtgtccgc ttttctgtcc 240
 caatgcacat accctggaac ctggtttctc tccttcgttg gggcccaacc cccctcctcg 300
 ag 302

<210> 69
 <211> 184
 <212> DNA
 <213> Homo sapiens

<400> 69
 gaattcgcgg ccgcgtcgac gatacaatct gcaaatgata aaaatttcga cgatgaagat 60
 tctgtggatg gtaacagacc ttcctctgct agttctacat catccaaggc tccaccaagt 120
 tctcggagaa acgttggaat gggaaccacc cgcgggcttg gttcatccac ccttggaact 180
 cgag 184

<210> 70
 <211> 262
 <212> DNA
 <213> Homo sapiens

<400> 70
 gaattcgcgg ccgcgtcgac caaaaacaaa acaaaaacaaa aaaactttgc ccacttcttt 60
 ttatatgttt gtgtctctcg aggttatcac ctgaagggat atttatggac tgaagagttg 120
 ttagtattat ttgtgtatct tttactttgt tagaatacat acttatcttc taatgaaatt 180
 attccagaaa actttaaaag agtcatttaa attgcctgtt agtatagtta taaaattgac 240
 agagcagtgg caaaaactcg ag 262

<210> 71
 <211> 166
 <212> DNA
 <213> Homo sapiens

<400> 71
 gaattcgcgg ccgcgtcgac aaaggatgga caacaaaaac aaatgcctat gtgtgataac 60
 catgatgatg gtgaaactgc agcaatcatt ttatgcaatg tctgtggaaa tttatgtaca 120
 gactgtgaca gattccttca ccttcacga agaaccacaa ctcgag 166

<210> 72
 <211> 370
 <212> DNA
 <213> Homo sapiens

<400> 72

```

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt gtaagccaaa ctgctggtta 60
gtcggggact gtctgtatac cctaaagtga tttccttate cttcccaaaa ccgactcttc 120
ctatattatc tgatttaaga aataggagta ataccactta ccttacagct tcctgggtca 180
ctctctcatt gagttaacca atagatcttt gaattcctaa ccttttctct atccatcctt 240
cccttttcag tgttctgttc ctatgctagt tcatgccttc ttacatctct tgctgaggtt 300
tttccatatt ctcgtaactt gtctccttgc gtctactctt cagtctgtct tccttaccac 360
cagactcgag                                     370

```

<210> 73

<211> 287

<212> DNA

<213> Homo sapiens

<400> 73

```

gaattcgcgg ccgcgtcgac ggcaccaagc ggaaaataaa ctccaacctg ggcaacagag 60
caagactctg tctaaaaaaa aaaaaaagtt aatggcattt ctatccctgt cttgctaact 120
agaaacctgg gaggagactc aagactgttc tcttcagtea gcttcccatg cctattttat 180
atcccactag tttattttat gagctatgtc tcaaaatcat actcttctct ctttgtctct 240
cttacttgat cattggtcag gctgtacct tcagccaccc tctcgag 287

```

<210> 74

<211> 212

<212> DNA

<213> Homo sapiens

<400> 74

```

gaattcgcgg ccgcgtcgac ccaatgagga aggcaaagaa aatcgagacc gggacagaga 60
ctatagtcgg cgacgtggtg ggccaccaag acgggggaga ggtgccagcc gtggacgaga 120
gtttcgaggt caggaaaaatg gattggatgg caccaagagt ggagggcctt ctggaagagg 180
aacagaaaga ggcagaagga taccggctcg ag 212

```

<210> 75

<211> 314

<212> DNA

<213> Homo sapiens

<400> 75

```

gaattcgcgg ccgcgtcgac acccctcccc catccaactt tcaggttatc tgaaaaataaa 60
gactagttat aaattgacaa gttgtcggga aattttgcag caataaaggg ggcaagtgga 120
aggcagagca ctttctagat cttgactttt ccatggccca tgtaagatca ctaaactggt 180
cattttattt tcgacagtta gcacctgctg ttgatataa ctaaatggcg ggaacatggt 240
ttttttgttg tttgtttgtt ttgtttgtt ttgtttttcg agacggagtc tcgctctgtc 300
cccaagctct cgag 314

```

<210> 76

<211> 268

<212> DNA

<213> Homo sapiens

<400> 76

```

gaattcgcgg ccgcgtcgac aagtgagcac acgaaatcaa agcatgaaag cagaaaagaa 60
aagaggaaaa actatccaga atggcaggga attgtttgag tcttcccttt gtggagacct 120
tttaaatgaa gtacaggcaa gtgagcacac gaaatcaaag catgaaagca gaaaagaaaa 180
gaggaaaaaa agcaacaagc atgactcacc aagatctgaa gagcgcaagt cacacaaaat 240
ccccaatta gaaccagagg acctcgag 268

```

<210> 77

<211> 295

<212> DNA

<213> Homo sapiens

<400> 77

gaattcgcgg ccgcgctcgac aattttaagt taagtcccat atgaaggctc aaaagagcgg 60
 taaagaacaa cagcttgaca ttatgaacaa gcagtaccaa caacttgaaa gtcgttttga 120
 tgagatactt tctagaattg ctaaggaaac ggaagagatt aaggaccttg aagaacagct 180
 tactgaaggc cagatagcag caaatgaagc cctgaagaag gatttagaag gtgttatcag 240
 tgggttgcaa gaatacctgg ggaccattaa aggccaggca gctcaggccc tcgag 295

<210> 78

<211> 148

<212> DNA

<213> Homo sapiens

<400> 78

gaattcgcgg ccgcgctcgac acatactttg cattttccac tgttactttg ataccatttt 60
 tagttgcgaa acacgtggca tgttctcgga aatgaatagc tttcaagata gtggagagat 120
 tcctaacgtt gtcaaggctg agctcgag 148

<210> 79

<211> 224

<212> DNA

<213> Homo sapiens

<400> 79

gaattcgcgg ccgcgctcgac ataaatttgc tgcggctgga ctcaaggaa atctcaatgt 60
 ctttctctct gaccttggga gcccacggga gccctttggg gcaagtcagc ctgtcagtct 120
 gtgggtgctg tagcggggga ggcatacctt catcccgttc caggggaaac gtctccccct 180
 ccagactgtt gtcatacatca ttctcctctt cctctactct cgag 224

<210> 80

<211> 288

<212> DNA

<213> Homo sapiens

<400> 80

gaattcgcgg ccgcgctcgac gtttcaataa aatgcttaaa gtttaatat acttgaaggc 60
 aagagaagac aaagaacccc caaaatatta gaaaagatta taaaagacat tataagggtt 120
 gaattcttac tctttgaatt ccatatttgt tttattattt actaatgttc taatattaag 180
 ttcatgataa gtcacacaca tatgttttc ccacactctt tccacctatc agtttttcta 240
 acatattatt gttttaaaat tcttaatttc attacagcaa tcctcgag 288

<210> 81

<211> 251

<212> DNA

<213> Homo sapiens

<400> 81

gaattcgcgg ccgcgctcgac tttgaagggt gtttgttgtt gttgattctt agaggcagat 60
 atctgactac gttgtgttta tactttagct atatgaatgt ttacctattg aaaatactgt 120
 tttattaaaa attactttgt tccttatacc ttaggagata aatgtacatt ttaaaagtgt 180
 tcctcagtcg ggtgaggtgg cttatgccc taagttcaac acttggggag gccgaaccag 240
 gaggactcga g 251

<210> 82

<211> 498

<212> DNA

<213> Homo sapiens

<400> 82

```

gaattcgcgg ccgcgtcgac gtccatggct gaggagaaga ggaagcgaga ggaagaggag 60
aaggcacagc aggtggccag gaggcaacag gagcgaaagg ctgtgacaaa gaggagccct 120
gagggtccac agccagtgat agctatggaa gagccagcag taccggcccc actgccaag 180
aaaatctcct cagaggcctg gcctccagtt gggactcttc catcatcaga gtctgagcct 240
gtgagaacca gcagggaaca cccagtggcc ttgctgcccc ttaggcagac tctcccggag 300
gacaatgagg agccccacgc tctgccccct aggactctgg aaggcctcca ggtggaggaa 360
gagccagtgt acgaagcaga gcctgagcct gagcccagag ctgagccga gcctgagaat 420
gactatgagg acgttgagga gatggacagg catgagcagg aggatgaacc agagggggac 480
tatgaggagg tgctcgag                                     498

```

<210> 83

<211> 277

<212> DNA

<213> Homo sapiens

<400> 83

```

gaattcgcgg ccgcgtcgac cttcagtcca tcttacatat ggccaagttt gcttcctaaa 60
agttcagatg ttgtcatatt gctataatgc tcaagactct tccactcccc actgcctaag 120
gaattcagta cagacttctc agggcgcttt gaacacaaat ccaaccactc tacgcagccc 180
tatctccac tgctccctcc acaagcttca ttctttatta agatggggac tatctggtat 240
gcagatagcc agccacatct tcccctctgc cctcgag                                     277

```

<210> 84

<211> 526

<212> DNA

<213> Homo sapiens

<400> 84

```

gaattcgcgg ccgcgtcgac ggatggtgaa cgggcaggag catctagtga ttgatggcct 60
ctgggtgttt ttaacgagag tttgaacaaa gactcagaaa tgggttttaa aataacagtc 120
ccatgtggcc cacatagaaa atattgggat attttaaggt gtggattcac tttccatat 180
ttaaacactt gtttctactt ggtgaaatac acaggtgaca agtcaacttc aggaataatg 240
gtttttttta gaagatggga gttgggaatt tcttatattt tctctcact tcttaaaacc 300
acctttgtgc cctgtctta cattaggaaa aatggaaagg tgattaaaca cggccgttag 360
gagcctaaaa tctaggtcag agtcccgtat gaaagaaatc agataagttg agagagggcg 420
tgtgcagggt ggaaatgggt gcgtccatct ctgctggggc gtcgatgcca cctggctgga 480
cagggtggagc ctggaaggta gggaggctcg gaacatgaag ctcgag                                     526

```

<210> 85

<211> 307

<212> DNA

<213> Homo sapiens

<400> 85

```

gaattcgcgg ccgcgtcgac gtaaccccggt ctcctctct ccccccaccg ctggaaacca 60
cgactccgcc gccacctct gcatttgact gctccaagta cctcaggaaa tgacctcatg 120
cgggtctcgc acgttcgcgt ccatcttggt tatttccagc gtttgcccg tgggagcgat 180
gagcgcacct gttcagcccc tgctttcagt tctttcaggg agttctcacg tggctctcag 240
aggttccac acgtgtctt ccacagcagc tgcaccattg tacattccaa cagcaacaga 300
gctcgag                                     307

```

<210> 86

<211> 194

<212> DNA

<213> Homo sapiens

<400> 86

```

gaattcgcgg ccgcgtcgac cgaggatttg gtgtaggaag agaaaaagag attgatgggg 60
taaatttgac tcacacatat atcatcaact cattttcaag agatttgctg tcatcaattg 120
attttcaaca gagacacgag agctagtcca tgaggaaagg aaagcatata acaaatttgc 180

```

tgggactact cgag 194

<210> 87
<211> 223
<212> DNA
<213> Homo sapiens

<400> 87
gaattcgcgg ccgcgtcgac atttggttct ttcctactca gaactactca gaaacaacta 60
tatatttcag gttatttgag cacagtgaag gcagagtact atggttggtc aacacaggcc 120
tctcagatac aaggggaaca caattacata ttgggctaga ttttgcccag ttcaaaatag 180
tatttggtat caacttactt tgttacttgc atcaatcctc gag 223

<210> 88
<211> 265
<212> DNA
<213> Homo sapiens

<400> 88
gaattcgcgg ccgcgtcgac gacaacatca aaagcaactg atgactctgg aaaacaagct 60
aaaggctgag atggatgaac atcgctcag attagacaaa gatcttgaaa ctcagcgtaa 120
caattttgct gcagaaatgg agaaacttat caagaaacac caggctgcca tggagaaaga 180
ggctaaagt atgtccaatg aagagaaaaa atttcagcaa catattcagg cccaacagaa 240
gaaagaactg aatagtttct tcgag 265

<210> 89
<211> 176
<212> DNA
<213> Homo sapiens

<400> 89
gaattcgcgg ccgcgtcgac aaattggaaa ctgtagaagt gttaatgtgt cctatggact 60
caatagcaga gtttattttt gtttttaatg gcaaggcttc tagagtcaat gattgtatga 120
gtttgctact ctggctgtgc ttacagcttc atccaagtac aaaggaagaa ctcgag 176

<210> 90
<211> 196
<212> DNA
<213> Homo sapiens

<400> 90
gaattcgcgg ccgcgtcgac ggtgtgttat tgtttttatt ggctgtacct ggtagaattg 60
aaaaatcagc atttctattg tagcctacta atttcagtga aatatttctt tagaaatata 120
aaatctggaa ctttccatca ttatgctctc ccaaaataat agaggacttt acacacagat 180
aacacctgcc ctcgag 196

<210> 91
<211> 348
<212> DNA
<213> Homo sapiens

<400> 91
gaattcgcgg ccgcgtcgac ggggggtggga aggagtgggt ggagctggcc tccctcagaa 60
tcaagctggg ctcaattgtg atttaggagg tatgaagtgg ggaatcagtc tttgtctacc 120
ttctgttccc tgcaccaga cctcctccac tttcttaggg taagaaatgc ctttgatagg 180
ggtaaagcct tcttttcag agtttgagat cagagacttc aatatgcaaa gtcttgggg 240
atgctgacag atcagcacac gtgcttttta tatttaata attctcaca cctatgtggc 300
ttgtcaggaa tgaagaatct aaagcttatt gtgctagggg cgctcgag 348

<210> 92

<211> 350

<212> DNA

<213> Homo sapiens

<400> 92

```

gaattcgcgg ccgcgtcgac gtctaatttc cttagtgcct gataatTTTT tattacggtc 60
tggagatttt atttaaaatt acttgtcaga ataattttga ggcttataat aaacatactt 120
tacttttaag agcaaagttt gcttctttac ccaggagcat tgcagtcag ggaacaactt 180
aaaccaagtt ccttgagaac acattctaaa ttttttagaa cagcatctta ataaacaaaa 240
acaacactca cgtttcagat tttatatttt tgtttcccaa aggatttata tcaactgtatt 300
tccaagtcac tgcacgttta atgtctttca aatcaacatc tctgctcgag 350

```

<210> 93

<211> 286

<212> DNA

<213> Homo sapiens

<400> 93

```

gaattcgcgg ccgcgtcgac tttacatatt gtctattgct gctttttcac aagaacagca 60
gagttgtgta gttgcgacag agaccatatt gaccaccagg cctaaaatat ttactgtctg 120
actctttaca gaaaaagttt atctggcctc tagtctaacc tatcaatttt aaaaaaacag 180
ctttttggag aaagaattca catactgtgc aattcaccca tttatatata attcaatggg 240
ttttagtata ttcacagaga tgtgcaacca ccaccccgag ctcgag 286

```

<210> 94

<211> 140

<212> DNA

<213> Homo sapiens

<400> 94

```

gaattcgcgg ccgcgtcgac gcatgagcca ccatgcctgg cccctttctt tcatctctcc 60
taattttttc gacattctcc taccattttt ctcttttctt gggccttcaa tttgtgcccc 120
ctccaccccc caccctcgag 140

```

<210> 95

<211> 176

<212> DNA

<213> Homo sapiens

<400> 95

```

gaattcgcgg ccgcgtcgac cgagtatttt actttattct ttttagaaac tgagtcattt 60
gtcctgttgt gtttccctt atctggattt tgtaatcata tcttggaaat tggtttcaga 120
gggtgtctctg tcttttgtat ttcattgtcag tttatactcc agtcgataag ctcgag 176

```

<210> 96

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (191)

<400> 96

```

gaattcgcgg ccgcgtcgac aaacaaaaga atcaaaactac gctaaattga ttgaaatgaa 60
tggaggagga accggctgta atcatgaatt agaaatgatc agacaaaagc ttcaatgtgt 120
agcttcaaaa ctacagggtt taccacagaa agcctctgag agactacagt ttgaaacagc 180
agatgatgaa natttcattt ggggttcagga aaatattgat gaaattattt tacaactaca 240
gaaatttaact ggccagcaag gtgaagagcc cagcttggtg tccccaagta cttcttgtgg 300
ctcattgact gaaagactac tgagacaaaa tgctgagctg acagggcata tcagtcaact 360

```

gactgaagag aagaatgact taaggaacat ggttatgaag ctggaagagc agatcaggtg 420
 gtatcgacag acaggagctg gtagagataa ttcttcagg ttttcattga atgggtggtc 480
 caacattgaa gccatcattg cctctgaaaa agaagtatgg aacagagaaa aattgactct 540
 ccagaaatct ttgaaaaggg cagaggctga agtatacaaa ctgaaagctg aaccgctcga 600
 g 601

<210> 97

<211> 347

<212> DNA

<213> Homo sapiens

<400> 97

gaattcgcgg ccgcgtcgac gaagggaacg ttcagctgga aactggagat aaaataaact 60
 ttgtaattga taacaataaa catactggtg ctgtaagtgc tcgcaacatt atgctgttga 120
 aaaagaaca agcccgtgt cagggagtag tttgtgcat gaaggaggca tttggcttta 180
 ttgaaagagg tgatgttgta aaagagatat tctttcacta tagtgaattt aagggtgact 240
 tagaaacctt acagcctggc gatgatgtgg aattcacaat caaggacaga aatggtaaag 300
 aagttgcaac agatgtcaga ctattgctc aaggaacagg gctcgag 347

<210> 98

<211> 351

<212> DNA

<213> Homo sapiens

<400> 98

gaattcgcgg ccgcgtcgac cttacctgtc ctaggggagt aggcaagcac ttccactagg 60
 gagggggtg gggaaaggaa tgacacatga catacatggc atacacatta agcagttgat 120
 catatgtctg actgggttcc agtttcttgg gaatgttggg ccccttggtc aggttgcat 180
 attttaaact aaaaatttca gtctattgtt tttagtaact tcatttatag tcctccataa 240
 caagttagaa ggatgtatct gctaccattt attcctataa ttttagaaag ttggggcttg 300
 acattatact catttagtga gtagtagtgc aaaaaagtgc aggggctcga g 351

<210> 99

<211> 446

<212> DNA

<213> Homo sapiens

<400> 99

gaattcgcgg ccgcgtcgac gaagaaggaa ggcgcgagt aggaaaggag gtactgtaga 60
 tgccctccaa atccttggtt atggaatatt tggctcatcc cagtacactc ggcttggtg 120
 ttggagtgc ttgtggcatg tgcctgggct ggagccttcg agtatgcttt gggatgctcc 180
 ccaaaaagcaa gacgagcaag acacacaacg atactgaaag tgaagcaagc atcttgggag 240
 acagcgggga gtacaagatg attcttgttg ttcgaaatga cttaaagatg ggaaaaggga 300
 aagtggctgc ccagtgtctc catgctgctg tttcagccta caagcagatt caaagaagaa 360
 atcctgaaat gctcaaaca tgggaatact gtggccagcc caagggtggtg gtcaaagctc 420
 ctgatgaaga aaccctgacg ctcgag 446

<210> 100

<211> 266

<212> DNA

<213> Homo sapiens

<400> 100

gaattcgcgg ccgcgtcgac ccgtccctct acgcgttttg gtccctgttt ggtgctttct 60
 gtttgcagct acggcagtga gtatatctgg gcataggaac caatcagaaa caatcgcttc 120
 agcaatcaag accattgttc atcatggagg aacccatgga tacctctgag cctctatctg 180
 cattaccatt cactgggcag cagtcttttg agccaagtgg caaatttggga cagtatccat 240
 cgatgcagat gaaccacata ctcgag 266

<210> 101

<211> 290

<212> DNA

<213> Homo sapiens

<400> 101

```

gaattcgcg cgcgctcgac aaaaaagtta ctgtatttta gactaaatgg gaaagataag 60
agatgatgct acagagtaat tcagaggcta aaacatgtag gggctcttga ggccatattt 120
ctttaaaaaa cagattaaaa aaacttattt tgggaaaaaa ctttcggaga tggccaaaga 180
acatgacaac tgccatcata cccttcattc gtattcattc attattaacg ttttcctaca 240
tttgcctatt tctccgtata ggggtatttt tcaagactgc tgatctcgag 290

```

<210> 102

<211> 234

<212> DNA

<213> Homo sapiens

<400> 102

```

gaattcgcg cgcgctcgac gcagactgtg caagctccca gctgttcctt cttctgctgt 60
ccctagccaa caaacacagt ggcatttaca acttttggca tatagaaatt atatgtaaaa 120
attcaggtag tactatttct tttagtccgt ttagtctctt tctctctcta tatatatgta 180
tctctggaca tgcattctctg gttatatctt gaggcctttg ctgcaaccct cgag 234

```

<210> 103

<211> 240

<212> DNA

<213> Homo sapiens

<400> 103

```

gaattcgcg cgcgctcgac ggggccctgg tcacgcttga aaatggtctc actaagtaag 60
ttccggatga aattaaagaa aacactcctt aggtccttct tttctgcttg ttcttggtea 120
cctacaatgg gagcagactt aaggcaagat tcatcgggag ctacaggagg ttcattggca 180
ggaaagttag tgggtgccagc agcttcaacg aagctccgtg catcccttct tcccctcgag 240

```

<210> 104

<211> 154

<212> DNA

<213> Homo sapiens

<400> 104

```

gaattcgcg cgcgctcgac cgtegattga attctagtcc tgtttctttg cctccccaac 60
aaacaccgtg ttccaagaaa tgccaagcct gaagaagaat gaaggtaggt ctgaaatttt 120
cagaggccca agcaagactc tggaatctct cgag 154

```

<210> 105

<211> 273

<212> DNA

<213> Homo sapiens

<400> 105

```

gaattcgcg cgcgctcgac ggtgttaggg gtttaaaggg agttgactga ataaggtaaa 60
gatctgctgg tcttgaaaat gaaacatctt cattatttca aatgtgtaac aactactgct 120
tgctatttgg cactatctgc ttctgtgctt catattaaat cctttaactt gcttcaatgt 180
gcatgtgctg gattgagagc cacttttgtc cccctggggc cacaggaggg tcccggcgag 240
gacccccgcc ctctggctcc cggggcgctc gag 273

```

<210> 106

<211> 262

<212> DNA

<213> Homo sapiens

<400> 106


```

gaattcgagg ccgcgtcgac gtggcctggg ctccataac aggtaaattg tctccaaagg 60
actagtaaag gtgactgggt catcctcctg cccaggggac actgattaga gaaaatccgt 120
ctgtgctggc aatacggcag tgctggacac tcggaattcc cttgaaggca aaagcaagga 180
acagagcgtg attaggtagt ggacacctgc caagtgcctg gctctctcca gtttacagat 240
gaggaaactg aggcctcctg ag 262

```

<210> 107

<211> 259

<212> DNA

<213> Homo sapiens

<400> 107

```

gaattcgagg ccgcgtcgac tgatgggtata agtatttacc tgggacaagg ggcttcctta 60
tttggctaaa ttatctaaaa tgcataggaa gaatagaact tttagttggc tatttttctt 120
ttatctatct atctatctat ctatctatct atctatctat ctatcatctc gttctattgc 180
ccagactgga gtgcagaggt gcaatcatag ctactgcag cctagaactc ctgggctcat 240
gcaattgtct cacctcgag 259

```

<210> 108

<211> 260

<212> DNA

<213> Homo sapiens

<400> 108

```

gaattcgagg ccgcgtcgac ggttttacca tcttggttaa caccgtgaaa cctgtctct 60
actaaaaata caaaaaatta gctgggatta caggcgtgag ccaccgcgc cggccaaaat 120
aaaattttta aaaggatatt tacatcagtg tagtatgtga agtaaacaa aaaaagataa 180
aactcacttt ttaagtaaaa acagtcagtg gcttgaagta tggtgtaac tttatcagaa 240
aagtatggga aggactcgag 260

```

<210> 109

<211> 255

<212> DNA

<213> Homo sapiens

<400> 109

```

gaattcgagg ccgcgtcgac ttggattaca ggtccctgct gccacgccc gctaattttt 60
gtatttttag tagagatggg gtttctccat gttggctcag ctagtctcga actcctgacc 120
tcagatgatc tgccagcctc ggcctcccaa agtgatggga ttacaggcat gagccattgc 180
gcctggccca ggacatttat ttttattgct aaatacattt cagtcattta tgtatttgtt 240
ttctccccc tcgag 255

```

<210> 110

<211> 423

<212> DNA

<213> Homo sapiens

<400> 110

```

gaattcgagg ccgcgtcgac tccttcctag ccttggctgt cgccgccacc atgaacaaga 60
agaagaaacc gttcctaggg atgcccgcgc ccctcggcta cgtgccgggg ctgggcccgg 120
gcgccactgg cttcaccacg cgttcagaca ttgggcccgc ccgtgatgca atgaccctg 180
tggtgatgct ccattgaccc ccaggcaaga gaaccgttgg ggaccagatg aagaaaaatc 240
aggctgctga cgtgacgac gaggatctaa atgacaccaa ttacgatgag tttaatggct 300
atgctgggag cctcttctca agtggaccct acgagaaaga tgatgaggaa gcagatgcta 360
tctatgcagc cctggataaa aggatggatg aaagaagaaa agaaagacgg gagctatctc 420
gag 423

```

<210> 111

<211> 203

<212> DNA

<213> Homo sapiens

<400> 111

gaattcgcgg ccgcgtcgac attacctcat aagcattaac aaatcaggcc caaagagcgt 60
aagtcctaga aatttgtttt aaagcagccc tagtcatggt gctggtgcta ccgccttggt 120
ttaggagcct gcctcctgtc agtatgaaac cctcacctga aaaatgccag cctggacacc 180
aaacactgag cccctttctc gag 203

<210> 112

<211> 257

<212> DNA

<213> Homo sapiens

<400> 112

gaattaagaa ttcgcggcgg cgtcgacaaa aaaaaaaaaa aaaggatacc aaaattctca 60
agtcaaatta taagggtttt aacattccca tttctacacc acgtgcaaga aaaacaaaat 120
ccttggtttt tgctgcctt tatggctcgt tctcattttc agccccctt cctcattcta 180
ctctattaat tatgccttta tatggatgca aacttgtaaa atatgtggcc tattttgtgt 240
gtatacgtgg tctcgag 257

<210> 113

<211> 348

<212> DNA

<213> Homo sapiens

<400> 113

gaattcgcgg ccgcgtcgac gttggaggag gaggaagagg aagtcgaaga ctgtggcttc 60
ctttttttgt tacttgaga ctcgtcgcta cgggtggaca ggtctttgac ttttgaggat 120
ttgctgggtt tgggttttga tggcttgtgg gatggggaag ggatgacggc tggatcggg 180
gacacggcgg atggggcctt gaagggtgag tccatgatgc tgagggttgc ggccacatga 240
gggaaagctg tgggtgtgga catgagggcg ctcgggtccg gcgatgtcac gaaagctgcg 300
tttgagagca tggctgatgt catcatgtaa gaagaggtga gcctcgag 348

<210> 114

<211> 303

<212> DNA

<213> Homo sapiens

<400> 114

gaattcgcgg ccgcgtcgac gggattacag gcataagcca ccgtgcccg cctgtagatt 60
tcatttttag aaggtttgct ttaacagtt taaatttgta actcacataa aaaaaactta 120
ttataagaaa gagaaactag gtgttaggat aagtaaaaca ataagcattt ttgtctcttc 180
tggttttgta gattttaatt gtttaactta ataaaatcac attaatggg gttcaactac 240
ttcacatttg taataacttt ggggtgttaa attgagatga aattcatcag gggaaaactc 300
gag 303

<210> 115

<211> 214

<212> DNA

<213> Homo sapiens

<400> 115

gaattcgcgg ccgcgtcgac aaaaaagaaa ggaagtggca tatttggtta attgataaat 60
taccactgtc aaattatatt ggtgagtcta tatctattgt tgtccccaga tgttgctttt 120
gcaagaatta gtgtaaaatt ggaaaaata ctcaatgttg aaagctgtca ttgttgagat 180
ctttatgaaa ttattgtgcc catgtccgct cgag 214

<210> 116

<211> 230

<212> DNA

<213> Homo sapiens

<400> 116

```
gaattcgcgg ccgcgtcgac tgcagatttt tctcttcacc tcatcaacag gtgatatagc 60
ccttttgggt gcttggcttt aagtacagtt cttagattca gctcctctac tttgtcaagt 120
ctaaatacta ttcctcagtg atgctgataa ccagcaaagt tttagtttct atgttgggca 180
tatttttggg gcagccctgt aaggatgtgc tccatggtac aagactcgag 230
```

<210> 117

<211> 195

<212> DNA

<213> Homo sapiens

<400> 117

```
gaattcgcgg ccgcgtcgac attaatTTTT cctgagagca gtagacttga ttagatgcc 60
ttttgtagtg tcatcaaatc ttagattatg agtcaaaga ttttatctct atatacaca 120
tttctaatat taaaaaaaaat agtcggggcgg ggtgcggtgg ctccaggcctg taatccagca 180
cttaagggggc tcgag 195
```

<210> 118

<211> 460

<212> DNA

<213> Homo sapiens

<400> 118

```
gaattcgcgg ccgcgtcgag aagatcctat tcaagagctg accatagaag aacatttgat 60
tgagagaaaag aagaaattac aggagaagaa gatgcatatt gcagccttgg catctgccat 120
attatcagat ccagaaaata atattaaaaa attgaaagaa ttacgttcta tgttgatgga 180
acaagatcct gatgtggctg ttactgttcg aaagctggta attgtttctc tgatggagtt 240
atttaaagat attactcctt catataaaat ccggccccctc acagaagcag aaaaatctac 300
taagaccgga aaagaaaccc agaagttaag agaatttgaa gaaggcctgg ttagccaata 360
caagttttat ttggaaaatc tggaacaaat ggttaaagat tggaagcaga ggaagctgaa 420
gaaagtaat gtagtttctt taaaggcata cggactcgag 460
```

<210> 119

<211> 239

<212> DNA

<213> Homo sapiens

<400> 119

```
gaattcgcgg ccgcgtcgac cagacagatc aaatggaaag gctcccccat cctgtcctct 60
acaccacctt gcagctgggc ctccagcaact gggcttttaa tttcagtcta attcaagtca 120
gcagcatagg gcagctcctg ggaaattggt ttacacatgc ggacaagccc agtagcccag 180
agctaacca ctcacatcc ctgaccacag aggagcagat aaggaagcaa gaactcgag 239
```

<210> 120

<211> 191

<212> DNA

<213> Homo sapiens

<400> 120

```
gaattcgcgg ccgcgtcgac tgggcatcat ctccataatc ttttcataaa gcatcaatga 60
tttcattatt cctctaccca aactttacaa gaagtatttt ttttttgag ccagtatctc 120
gctccatcac ccatgtgga atgcagtggc atgatcatag ctccactgcag cctcaacctc 180
ccaggctcga g 191
```

<210> 121

<211> 227

<212> DNA

<213> Homo sapiens

<400> 121

gaattcgcgtg ccgcgctcgac tttcttttga tcaactatgcg gtgtcactat gtggtagtag 60
 cgaggtcaga ctgtagecag tgtttaaagt ttgtctcctt tgttttctgg gcttgtgggg 120
 ctttttctgg tacctgcctt agcctagtca gtcattcccc atgctgcccc cttaggctag 180
 agatgccta ccgccctcag gcctcgtga atgtgccaaa cctcgag 227

<210> 122

<211> 166

<212> DNA

<213> Homo sapiens

<400> 122

gaattcgcgg ccgcgctcgac tgactcatag tcaagaccct ccaccagtaa catatattgg 60
 cgagccagcc aggagaccac tacaggaaac actccattta ttccacctga cttcccactt 120
 ggctgcatcc tcaaccattg aaatgaattt gaccctgata ctcgag 166

<210> 123

<211> 223

<212> DNA

<213> Homo sapiens

<400> 123

gaattcgcgg ccgcgctcgac ctaaaacccc agaatcatta ttgttgcac tctttatttt 60
 ccattctaatt attcatcaaa tagcagtaat gctttctttg aaatgtcttc tatatatctt 120
 tgttttcggt tctgtctttc atctctcat ttctgttctt tccccctccc cttctctcga 180
 tttacttcta acagctttat gtccctttca gtcgacctc gag 223

<210> 124

<211> 178

<212> DNA

<213> Homo sapiens

<400> 124

gaattcgcgg ccgcgctcgac cagactggca acaaactttt gagtgagtgt taagatacaa 60
 gaaaccctaa aagtccctag gagaatgac tttaaactta gaattcctt ttttaatttg 120
 gtccacacag ggtctcactt tgttgcccag gctgctgtac aatggcccag atctcgag 178

<210> 125

<211> 226

<212> DNA

<213> Homo sapiens

<400> 125

gaattcgcgg ccgcgctcgac agaaaagcac aaattagttt taagtgaaa gttgaaaagt 60
 aagtccgata aattaacatt caccatttgt ttttttttaa taaaggtaaa aatcactaaa 120
 ataaacagcc cactttaaca aaaaataggt gcaataaaac tataaaagag aaagcaaggg 180
 agtgatgaac agaggttgta ggtgatgat acggaggata ctcgag 226

<210> 126

<211> 220

<212> DNA

<213> Homo sapiens

<400> 126

gaattcgcgg ccgcgctcgac gtttcaaagc cgtagacacc ttttattcag ggctggtaag 60
 ctctactggt gtttttggtc tctgtctttt tttttttttt ttaaatctga ttacaatggt 120
 gttgcacact gttgtggttt atcgtttttt agtgatcctg ttgctcaata accctccagt 180
 gctctgctct gaaacagcac cagaacccca cccactcgag 220

<210> 127

<211> 216
 <212> DNA
 <213> Homo sapiens

<400> 127
 gaattcgcg cgcgctcgac tcgtccagta ccagtgccac gcagtttaaa tagtgatatt 60
 tcctattttg gtgttggggg caagcaagct gtcttctttg ttggacaatc agccagaatg 120
 ataagcaaac ctgcagattc ccaagatgtt caccgagctt tgctttctaa agaagatttt 180
 gagaagaagg agaaaaataa agaggcagct ctcgag 216

<210> 128
 <211> 180
 <212> DNA
 <213> Homo sapiens

<400> 128
 gaattcgcg cgcgctcgac gcaaactagt aagtatgagg ttttcagctt caaatacaaa 60
 accgtaatat tactagctga cattattgag tgcattcaga atacttttagt ggacttttta 120
 taagaattat taatatattc caaaggatta ggaatgttac ttttcatgtt ctccctcgag 180

<210> 129
 <211> 204
 <212> DNA
 <213> Homo sapiens

<400> 129
 gaattcgcg cgcgctcgac ttctctctct ctctctcttg ccatttttagc gtgcatgatt 60
 tcattttttt tgttggcacc tgtaagggtg tatctttttc ttgcccagcc ttgggttatg 120
 gttacatctt cccattgtct attgcccacc ctccagttgg caccctctgg gcgtctcttg 180
 ctgggtgaag ccgggcctct cgag 204

<210> 130
 <211> 237
 <212> DNA
 <213> Homo sapiens

<400> 130
 gaattcgcg cgcgctcgac ctgagggatg ctcatcttta acagtctccc tcatgtactt 60
 ttgtctgttt acacagagaa acaggtagac cccacagagg agaaggagg gattcaacag 120
 ctttattgtc tggaagcagt gagatttggt gattgtctgg ggggattcct gggtttcct 180
 gggtagcttg ttccaggcag tcagtccatt tgccttcta gtacaagccc cctcgag 237

<210> 131
 <211> 250
 <212> DNA
 <213> Homo sapiens

<400> 131
 gaattcgcg cgcgctcgac cttgtagata ctttttgaat ttaatgtcgt tagaattgct 60
 tcttttttta atgctctatc taggtgaaag atatgatcct gagcccaaat caaatggga 120
 tgaggagtgg gataaaaaca agagtgcctt tccattcagt gataaattag gtgagctgag 180
 tgataaaatt ggaagcacia ttgatgacac catcagcaag ttccggagga aagatagaga 240
 gactctcgag 250

<210> 132
 <211> 258
 <212> DNA
 <213> Homo sapiens

<400> 132

gaattcgcgg ccgcgtcgac atttatttaa ataatatagt tccatatttt ttagtatatt 60
 tacagagtgt tgtaaccatt accacaatct aattttggaa cactgtcttg gtcctgaaa 120
 gatcctgcaa accattagca gtcactcttc atttctctt tccccagccc ctggcatcca 180
 ctaatctact ttatgtctct atggatttgc ctactctggt tgtttcagat aacatttggg 240
 ctttgtgaca gactcgag 258

<210> 133

<211> 139

<212> DNA

<213> Homo sapiens

<400> 133

gaattcgcgg ccgcgtcgac ctttcccaaa attcagaagt taatgggctt ttatgttttt 60
 ctatattttt ttattttcaa tgatttggcc tgtctatggt aggcataaaa ataaccttgt 120
 gtatgctacc aacctcgag 139

<210> 134

<211> 201

<212> DNA

<213> Homo sapiens

<400> 134

gaattcgcgg ccgcgtcgac ggagaagtaa gaattgtaag ggaggttcag tagtggggaa 60
 ttctgtgaca gctgattgaa gatgatgatg aagaacctct gcattctagt taccctttgc 120
 ttcccttcac ctcttgtaaa atttggcttg gcaacaatga cattgtcatg cttattgtcc 180
 caatatccat ccaatctcga g 201

<210> 135

<211> 132

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (84)

<400> 135

gaattcgcgg ccgcgtcgac ctcgagggtt tctaagagga aaccaaaaaa gagctggaag 60
 agaacaagcg atccctggct gcantggatg cactcaatac tgatgatgaa aatgatgagg 120
 agggctcctcg ag 132

<210> 136

<211> 190

<212> DNA

<213> Homo sapiens

<400> 136

gaattcgcgg ccgcgtcgac agaagacata ctaatagaac tccttgcttt taattgggga 60
 aatagggctt taataatttt gacctcaact aaaaatgata tgcaatagtc tctgtgtgtg 120
 ttgaaatac attgtgttct cagagatttc tacattctca cgttctagtg atttggggca 180
 tagactcgag 190

<210> 137

<211> 220

<212> DNA

<213> Homo sapiens

<400> 137

gaattcgcgg ccgcgtcgac atcacaaatga gaccgttggc tttgaatttg agtcgttggg 60
 tccccaggtg agatgcttgt taagacttta tacttgggtc aatctctcac tttattttgt 120

agaaccattt gaaatcctag gatgtgcttg ttctggaagg atgacatggg cccagactga 180
 acaagtcagc ttgatgatct taaatgatgg gcaactcgag 220

<210> 138
 <211> 156
 <212> DNA
 <213> Homo sapiens

<400> 138
 gaattcgcgg ccgcgtcgac tgcatttttt ggatatattaa tcttgatcc tgtaaccttg 60
 ataatgcatt tattagttca tagtggtttt tgcttctttt gttcttttct ggtaaatgcc 120
 ttaggatttt ctttttctcc cgactccccg ctcgag 156

<210> 139
 <211> 239
 <212> DNA
 <213> Homo sapiens

<400> 139
 gaattcgcgg ccgcgtcgac ctgaaaataa ggaaatgtt agggacaaaa aaaagggcaa 60
 cttttttatt ggctctgtgg atgagcgccc ctgtttgctc ggacaaggcc gaaggaagca 120
 gcagctctac tggctgcagg cttgacatcc gggtttctag ctctgaacga gaagcagagt 180
 cctggaaact atcaaacaca acctcgcccg tggcaggctg cactcccaca atgctcgag 239

<210> 140
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 140
 gaattcgcgg ccgcgtcgac cccgcctcaa cctcacgagt aagctgagac tgcaggctcc 60
 accacaccca gcgaatttat ttatttttgt agagatgagg ttccacctt ttgccaggc 120
 tggctctcaa ctcttgccct caagtgatct gaccaccagc ggccctcgag 169

<210> 141
 <211> 222
 <212> DNA
 <213> Homo sapiens

<400> 141
 gaattcgcgg ccgcgtcgac aaaacgcccc atgatgaatc taagtcttat attggctgtg 60
 atctttgtac taactgggtat catggagaat gtgttggcat cacagaaaag gaggctaaga 120
 aaatggatgt gtacatctgt aatgattgta aacgggcaca agagggcagc agtgaggaat 180
 tgtactgtat ctgcagaaca ccttatgatg agtcacctcg ag 222

<210> 142
 <211> 198
 <212> DNA
 <213> Homo sapiens

<400> 142
 gaattcgcgg ccgcgtcgac tgccaaattt tttaaatctc gaaattggtc ctaaaagaga 60
 cttcatatat catctgggtc aatgagaga ctttttactt tatttattat ttatttttat 120
 ttatttattt atttatttat ttttgagatt gtgccattcc actccagcct ggggtgataaa 180
 gctggactcc gactcgag 198

<210> 143
 <211> 238
 <212> DNA
 <213> Homo sapiens

<400> 143

gaattcgcg cgcgctcgac tattcttgc ttgctggagg cagatctgaa ggatgtcatc 60
 tctctgtgg cttcttctag tgtgggtcc cgaagcctgg cttccccagc cgatgtgctg 120
 ctttagtcag cgtctgccct ggtccttcgg ttcgcaggct cacacgcttt tttgggttgt 180
 gtccctttgg actgcagagg ctacgtgtcc tgtgaccaac cacggaggcg gcctcgag 238

<210> 144

<211> 151

<212> DNA

<213> Homo sapiens

<400> 144

gaattcgcg cgcgctcgac ctaaagtcca gtgtttccag agacttttga aagtcaactt 60
 acactttttc cttcttcatt cacaaagctc ttcttccctg ggccctggta tgtatgcctt 120
 tctctctac tgtctaatag cgagcctcga g 151

<210> 145

<211> 186

<212> DNA

<213> Homo sapiens

<400> 145

gaattcgcg cgcgctcgac caggatgttc tttctatccc attcatctac cttgggtgtt 60
 ctttgtcttg cctccttgct ctgggtgtgc gagcaatag ggccaccttc atttctgcag 120
 tcagagggtt ggccactggg aatgagaaga accacctctg taccctggga tgcgtgtgca 180
 ctcgag 186

<210> 146

<211> 460

<212> DNA

<213> Homo sapiens

<400> 146

gaattcgcg cgcgctcgac gggctctgaa gccctctgtc tacctgggag accagggacc 60
 acagggcctta gggatacagg gggteccctt ctgttaccac cccccacct cctccaggac 120
 accactaggt ggtgctggat gcttgttctt tggccagcca aggttcacgg cgattctccc 180
 catgggatct tgagggacca agctgctggg attgggaagg agtttcaccc tgaccattgc 240
 cctagccagg ttcccaggag gcctcaccat actcccttc agggccaggg ctccagcaag 300
 cccagggcaa ggatcctgtg ctgctgtctg gttgagagcc tgccaccgtg tgctgggagt 360
 gtggggcagg ctgagtgcac aggtgacagg gccgtgagca tgggcctggg tgtgtgtgag 420
 ctcaggccta ggtgcgcagt gtggagacag gattctcgag 460

<210> 147

<211> 244

<212> DNA

<213> Homo sapiens

<400> 147

gaattcgcg cgcgctcgac caccttccat ccattttccc agtcagaaa tttaggagtt 60
 atctctgatt ccttctttat tcttaatccc attttccata cataatcaag cccctgggtc 120
 agtcagttct tgtgcccga gatttctcaa ttctgtctgt ttgccatag tgaatcatat 180
 gctactgtgt tacctttgca ttagtcttag tttttcattt aaatatattc agtgtgagct 240
 cgag 244

<210> 148

<211> 165

<212> DNA

<213> Homo sapiens

<400> 148

gaattcgcg cgcgctcgac atttcatgaa cttaggatgt gttttttatt catgaaaaac 60
 ttagaatagt gaactattaa tatttaaaaa cgagaaatac aacatttaaa aaattaagag 120
 tattttgcat tagtgattat gattcttata ccaaaattcc tcgag 165

<210> 149

<211> 252

<212> DNA

<213> Homo sapiens

<400> 149

gaattcgcg cgcgctcgac gaagcctcat tggagcagat tgctttaaaa tctttttcct 60
 tctaatttca ggattggcat ctctgtctt tttctgtctt cttggcattt tagcatatct 120
 ccagtagggg gtcctcgaat tctgaatacc aatttacgcc aaattatggt cattagtgtc 180
 ctggctgctg ctgtttcact tttatatttt tctgtgtgca taatccgaaa taagtatggg 240
 cgagatctcg ag 252

<210> 150

<211> 136

<212> DNA

<213> Homo sapiens

<400> 150

gaattcgcg cgcgctcgac agacattgtt ctttagccat tgtatcttta atagtctttt 60
 aaacacattc atctctgggc taaaaatgct ttttaaaaa accaaaaaga gtacttttct 120
 agaagcattg ctcgag 136

<210> 151

<211> 188

<212> DNA

<213> Homo sapiens

<400> 151

gaattcgcg cgcgctcgac cccaacctga agctgaagaa gccgccctgg ttgcacatgc 60
 cgtcggccat gactgtgtat gctctgggtg tgggtgtctta ctctctcatc accggaggaa 120
 taatttatga tgttattgtt gaacctccaa gtgtcgggtc tatgactgat gaacatggac 180
 acctcgag 188

<210> 152

<211> 181

<212> DNA

<213> Homo sapiens

<400> 152

gaattcgcg cgcgctcgac atttttactg caagttaatg ctggaaaaac agggcaattt 60
 ttacagaga gaacatccta ataatatcag tttagtacaa aatagcggca tcttagtgaa 120
 ccttgatatt ttcctttttg ttgcagttgt tgctagaaaa cataatcgga aggacctcga 180
 g 181

<210> 153

<211> 251

<212> DNA

<213> Homo sapiens

<400> 153

gaattcgcg cgcgctcgac caacctctg gcttagtaag ttgtggtttt tctgaccttt 60
 ttaaagtgtg agaggacatt ttatttatat taaccaattt atttgaattt cagtctcaga 120
 agtattaaat attagttcat aagattgtta atctgctggg tcaggcaaat acagaagagt 180
 ttttactttt attcttgatt attttactta tgatcatttc caatttagtt ggggtaataa 240
 cctgcctcga g 251

<210> 154
 <211> 224
 <212> DNA
 <213> Homo sapiens

<400> 154
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 tttatatatc aaaacaattc agcttgcttc acttttatga aagctttatt atgagtttga 120
 aagcaattct gcattttctt aacattgtaa ctggtgttga gttgaaggca ggccctctgg 180
 agccctttgt gggcaattcc cttcactctg gaggtgcct cgag 224

<210> 155
 <211> 145
 <212> DNA
 <213> Homo sapiens

<400> 155
 gaattcgcg cgcgctcgac cttgtcttat tcctgatttt aggggtgctca ctcttagtct 60
 ttggccatta tattgtttta tgttggtttt ccataacctc actatgctga atagcagttt 120
 ggcactctgt ctggctgctc tcgag 145

<210> 156
 <211> 163
 <212> DNA
 <213> Homo sapiens

<400> 156
 gaattcgcg cgcgctcgac cagctatttt attttaaaag ccaaaatatt tttaaactag 60
 ttttaaatat tgacgctttg aatagataac acttttacat ggttcaaaaa taatataaag 120
 agctatacat tgaaaaatgt tgcttcact cctgttcctc gag 163

<210> 157
 <211> 197
 <212> DNA
 <213> Homo sapiens

<400> 157
 gaattcgcg cgcgctcgac agagcttact gagttaattg ccaggagatg tatctaagtc 60
 agaggttggg gttgctcctc tgtgttttgc tgggttcgtg cagagctgct tttgtaccag 120
 gtttctacca cttggggtgc tttttgcttt tcttttcaact tcccacatct caagcacctg 180
 ctgcgggtca gctcgag 197

<210> 158
 <211> 255
 <212> DNA
 <213> Homo sapiens

<400> 158
 gaattcgcg cgcgctcgac ttaaaaaatt gtgaagcgtc gcatattttt tcagttattt 60
 tagtattaac aaacaaattg aagatcattg gtttatataa ccccttgaga gactaatagt 120
 agaatagaac agaataatag aatagaatag aacagaatag aataatagaa tagaattata 180
 ggtatgagcc gtggtgcctg gcctctaata gtttttttgt tgttggtgtt gttgtttttt 240
 atggttccc tcgag 255

<210> 159
 <211> 150
 <212> DNA
 <213> Homo sapiens

<400> 159

gaattcgcgg ccgcgtcgac tggagtggga tgggaatttag caaagggtaca tagaacaaca 60
 gtgatcacat tgcttaagag tttctggttt tttttgtttt ttgttttttt tgagatggag 120
 tcaggctctg tcgcccaggc tggactcgag 150

<210> 160

<211> 114

<212> DNA

<213> Homo sapiens

<400> 160

gaattcgcgg ccgcgtcgac cttattccaa cattttcttt aaaacaccag caaacgtatt 60
 tgtgaatctc tcttatcctt gaaacttctt atgctgttga taaacttact cgag 114

<210> 161

<211> 166

<212> DNA

<213> Homo sapiens

<400> 161

gaattcgcgg ccgcgtcgac ctatgaatca cgatactacg atgatcctcg ggaatacagg 60
 gattacagga atgatcctta tgaacaagat attaggggaat atagttacag gcaaagggaa 120
 cgagaaagag aacgtgaaag atttgagtct gaccagggac ctcgag 166

<210> 162

<211> 182

<212> DNA

<213> Homo sapiens

<400> 162

gaattcgcgg ccgcgtcgac attctttgtt accctttaca agtataagtg ttacaagta 60
 taagtgttac cttacatgga aacgaagaaa caaaattcat aaattttaat tcataaattt 120
 agctgaaaga tactgattca atttgatata agtgaatata aatgagacga cagcttctcg 180
 ag 182

<210> 163

<211> 217

<212> DNA

<213> Homo sapiens

<400> 163

gaattcgcgg ccgcgtcgac cttttttctc tctctctttt aaataaacac aagcttcaaa 60
 taagcacaca ataagtctgg gcaagcctac tgggatttgg gattctctag ttagttttct 120
 ttgcctaact gagatatcta ttccatacta ctcttcattc cccaaatata tcattccctt 180
 ctctacctcc cctcccagct gccccacaa cctcgag 217

<210> 164

<211> 165

<212> DNA

<213> Homo sapiens

<400> 164

gaattcgcgg ccgcgtcgac gcacaatagc agtttctaag caatgaatga gaggacacgt 60
 atgttggtga ctttgttgtt tctcttcctc cctccaataa ataaaaccga gagttttgtg 120
 gacagggatt tattagagtt tcatcattta gttgacaggc tcgag 165

<210> 165

<211> 227

<212> DNA

<213> Homo sapiens

<400> 165

gaattcgcgg ccgcgtcgac tcgtgttaac aactttttgc ttgttggtat tgtttcttta 60
 ggatacattt ccagacatat acttagaaca tcaaaaacgt atggacatct ttttgatttc 120
 tcatgtgtta tattatgtcg catgtgttat gttatatgta tatatatata tgtataaac 180
 atatatatat gtcattgtgt atattatgtg ggggggaaaa actcgag 227

<210> 166

<211> 211

<212> DNA

<213> Homo sapiens

<400> 166

gaattcggcc aaagaggcct agtttatgaa acttaccaga aaataaaagg accaatctaa 60
 aataaagaat ctctattgta tttttctact gacaatgcaa atgcttatct taaaacatct 120
 aattttttcc cctttttcac aggcaagcac aactgtaaca cttccagaat ctcagtctct 180
 tgccagtgtt cattctgaag catccctcga g 211

<210> 167

<211> 218

<212> DNA

<213> Homo sapiens

<400> 167

gaattcggcc aaagaggcct agaattaaaa cccataatct atatcttagc taagatagga 60
 aaaatttact aaaatatttt tttctgttg aatttcagat ttctctata actctgcaca 120
 ccagaaaaaa atctatagta caaatacaca tgaaattcca tcaactgttt catttttttt 180
 taatttttct taatcttgtt cagggcatac atctcgag 218

<210> 168

<211> 238

<212> DNA

<213> Homo sapiens

<400> 168

gaattcggcc aaagaggcct aaagccaggt aaaaatttta aaaaagatga aatcctttct 60
 ggcttctgcc agaggctctg cattcttcat atctctgttc ctcatcagtc actgcaaagc 120
 tgatcagaca gattggcatg gtgttcagca ttttgagtcc cagactctgg cgatgggaga 180
 taggtcattt ggaatttttc cctcatcccc tcctcaaaac caaatcagaa atctcgag 238

<210> 169

<211> 265

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (31)

<400> 169

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 gtaaacgtga ggggtgccc atctctttga taaactgatt tcctttcctt tggatagata 120
 cccagtagtg ggattgctgg atcatatggt agttctattt atagtttttt tttttttttt 180
 gagacggagt cttgctctgt caaccaggct ggagtgcagt ggcattgatct cagctcactg 240
 caacctccgc ctcccggggc tcgag 265

<210> 170

<211> 230

<212> DNA

<213> Homo sapiens

<400> 170

gaattcggcc aaagaggcct aggatattcc agcaaagtct ctaactgcag cctgtagaca 60
 atttgctatt aaagattcag tgcacaaaat atagctaaca gcttttaaag ttttactttt 120
 aaccagtctg gggatttgct tgcctgggtga gtctcatatg ccatattatg aatatgaaaa 180
 taatgaagtt aatttcctgt tgcctttctg tgtcagccac aaacctcgag 230

<210> 171

<211> 293

<212> DNA

<213> Homo sapiens

<400> 171

gaattcggcc aaagaggcct aggaatggct tgatggtgct aggctatgct gtgactgggg 60
 ctgtcctggg ccaagacagg ctgatcaact atgccaccaa tgggtccaag ttcctgaagc 120
 ggcacatggt tgatgtggcc agtggccgcc tgatgcggac ctgctacacc ggccctgggg 180
 ggactgtgga gcacagcaac ccacctgct ggggcttctt ggaggactac gccttcgtgg 240
 tgccggggcct gctggacctg tatgaggcct cacaggagag tgcgtggctc gag 293

<210> 172

<211> 139

<212> DNA

<213> Homo sapiens

<400> 172

gaattcggcc aaagaggcct agggattttt tactagtgat ttaatgttac tacttggtat 60
 tggctgttgc aggcctttct tcttctgat tcaagctggg cagggtgat gtttccagga 120
 atttaccatt tccctcgag 139

<210> 173

<211> 149

<212> DNA

<213> Homo sapiens

<400> 173

gaattcggcc aaagaggcct agtgagagtg acatcatgca ggaattactc gtattgaaca 60
 cactttttct agatattctt ccaatccccg acgtcgggca tctaattgtt gttctgataa 120
 tgaaaaatggc cactcccccg ggactcgag 149

<210> 174

<211> 209

<212> DNA

<213> Homo sapiens

<400> 174

gaattcggcc aaagaggcct actcgaagtt cctcaaatac accaaagact ttctggcct 60
 aaataatttt tatgtatcta tttctgcatt ctcagctttt ctttttctt ttatctaccc 120
 aaccaaactt ttcaaggctt agtgaaaatg atttccttcc tgaggtcagt ctttgcccaa 180
 aaagatccct cacatcctct aaactcgag 209

<210> 175

<211> 223

<212> DNA

<213> Homo sapiens

<400> 175

gaattcggcc aaagaggcct aatcatatta taactgatta gacaaaatgt ggcattattg 60
 tttttatttc ttttgtgtt tacaaggctt cactctgttg cccaggctgg agtgcagttg 120
 tatgatctcg gctcactgca gcctggacct cctaggctca agcaatcctc ccacctcgcc 180
 cccccacata gctgggacta caggtgcagg ctatcgactc gag 223

<210> 176

<211> 151
 <212> DNA
 <213> Homo sapiens

<400> 176
 gaattcggcc aaagaggcct agtttcttga atgtaacatg acattttctca tttccatacc 60
 ttcatttatg ttgtttatc ttggaatgc cttccttcac ttgatgctt cacacgctaa 120
 tacacatcct tcaagaccca attcactcga g 151

<210> 177
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 177
 gaattcggcc aaagaggcct aaacataatt agttgtttat atacttcctc tttaatccca 60
 gagttcgatt tacaaaatat ttgattgctg tttttgtata ttatctcagt gctctaaaat 120
 taccctagca aacgtgcagg aatgggtgta ggccccttaa ataaaaatgg aattagttat 180
 gttgggtttt ttttttttgc tgtttcactg ttacaattcc ccactgtcaa aggtcattc 240
 cacaattttg tgggattagg gacaatggga tgtcatctct cagctggcta cttcttgccg 300
 aacagggtca acgcggggca actcgag 327

<210> 178
 <211> 500
 <212> DNA
 <213> Homo sapiens

<400> 178
 gaattcggcc aaagaggcct agagggggcgc tgcgaggtat actgctctcc tctctgggat 60
 ctgtgagtaa tacactacct ctgctatttc atgcacctc gctatttcac gttgcctcct 120
 ctgtgtctca cctgcccagc acacctgaat ctacagtatt tcctggtcag ggcattccta 180
 gagagtggct atcttggttag gaataaacca gaaacaggtc agacaagagc cccaagagtg 240
 tctgtcaata taatcaagtc cttatgagag aggacatctg gtcacagggtg gacacttagg 300
 cattaggcct tccaccagaa agaagtatcc caagaaaggc aactgcaga cagccacgac 360
 cactccctc gcacagagc agggctagag tttatagcca ctttctagag agagctcaag 420
 aactaattag aaagaaaaaa aaatacaaca cacttgcca tgttaaaact gggatttgga 480
 cccatgccat ctggctcgag 500

<210> 179
 <211> 226
 <212> DNA
 <213> Homo sapiens

<400> 179
 gaattcggcc aaagaggcct agttgagggg aggttggttt catggtttta cttttggttt 60
 tttgaggact atgtttgttt ttatttttat tttttatttt tttatttttg agacagaatt 120
 ttgctattgt tgcccaggct ggagtcagc ggcacgatct cagctcactg caatctccgc 180
 ctcccagggt caaactattc tcctgctca gcctcccaag ctcgag 226

<210> 180
 <211> 272
 <212> DNA
 <213> Homo sapiens

<400> 180
 gaattcggcc aaagaggcct aatgtggctc tttctccttt ttcacctatc ttgatttga 60
 tgctcagaat atgttccttc tgggtccatg ttgacagcta agtttcccaa ggatagcca 120
 gctttcttta ggagttttct tcttctcatt cctaccatga tgtgagaatt gactgagctg 180
 gtttctcctt atttgttga cacattacta gtaaccatta cttataatta ttttagatga 240
 tgctagcatc atttttactg ataaggctcg ag 272

<210> 181
<211> 210
<212> DNA
<213> Homo sapiens

<400> 181
gaattcggcc aaagaggcct aagaatgtgc atacatgttt tcatgagtgt cctttgggtg 60
ctgtttcttt taaatcctct gtgcacaggg ctctggcctt tagtaactg tttttctgtc 120
ttacgtcatg ctgactgggt gctaggggct gattacaaag gggaagagtt gaacagacat 180
caggggccga tgaaactaaa tggactcgag 210

<210> 182
<211> 353
<212> DNA
<213> Homo sapiens

<400> 182
gaattcggcc aaagaggcct acgttctgca agtactagtt aatacaataa aactagagag 60
agaaagaggt aattcaaagg caggaggtaa aatgatcact acttgacaa tgagtgtata 120
cctgaagaaa cccaagggaa tccactgaaa aactactatc aacatgaaga gagtttcaga 180
aaagatgaca gctgggtaca aaattaacac agagaaccca ataggtatca catataaacc 240
aacaactagt gagaagatac aatggaagaa atggccttat tttcaaaagg aacaaaaagt 300
taaaatatta taagtcaatt tcacaggaaa tgtctaaaac tcccagactc gag 353

<210> 183
<211> 198
<212> DNA
<213> Homo sapiens

<400> 183
gaattcggcc aaagaggcct aaagacatca aggcattcaa tgcataccgt tttgggtttt 60
attttctcct gtcctttgct ttctggattt tcattctcatg taaagcatgt ggggggttta 120
tttttatatt tttgtgtgtg tgtgcagtgt ctgccccaa caagtctctt gggaggagga 180
ggcggcagca cactcgag 198

<210> 184
<211> 216
<212> DNA
<213> Homo sapiens

<400> 184
gaattcggcc aaagaggcct attttaattc tatttttcat ttgagctgac ttgtagccac 60
ttcagactat caatggaatc ttatgttgag cettctctg gctttcctc ctccactatc 120
tctccaactt tagagatcat cccctctccc tccagtgcgt tctatctccc ccacaccac 180
cctagatact cccttttcac ccacctctc ctcgag 216

<210> 185
<211> 208
<212> DNA
<213> Homo sapiens

<400> 185
gaattcggcc aaagaggcct aaaggctgaa tatgaggaaa aattcctggt acaaggatcat 60
actaagcatt ttagttccac ctgccatatt gctgttagag tataaaacta aggctgaaat 120
gtcccatatc ccacaatctc aagatgctca tcagatgaca atggatgaca gcgaaaacaa 180
ctttcagaac ataacagaag agctcgag 208

<210> 186
<211> 184
<212> DNA

<213> Homo sapiens

<400> 186

gaattcggcc aaagaggcct aatttctcat cacccaaggc tgcaaatctt ttcaaatggt 60
atatttcata ttgtggttac tgtctccaaa tatcttctct ttccttctcc ttcaattgcc 120
ttgcagctgg caagtctctg gagtcctgt cccttgccat tgcccactga acagacatct 180
cgag 184

<210> 187

<211> 239

<212> DNA

<213> Homo sapiens

<400> 187

gaattcggcc aaagaggcct aggtagactt cctgtgatct tcagaaatca tctacctggt 60
aaaaatacat gctgtttaga atatctgata ggtgtttcca gctactatta gaggtgatag 120
tgcttttctg ggggaaaaaa ttggtcatgg tgaatggaga tcgaggaagc tcgggacaag 180
ggaggggtgg gctgcctgat tttgtccagt ttccaaata tccacgcaat gaactcgag 239

<210> 188

<211> 216

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (151)

<400> 188

gaattcggcc aaagaggcct agtgtgtgtg tgtgtgtgtg tgtctaattc aaattataca 60
caaggagttt gtgcaggctt tcttttagagg cagaagccag ttaggcaggc caagaataat 120
ataaaatcac aaatgaagag aataatgtgt ntatttttca tttgtcattt aggactgtct 180
gggggagact gtcctctctt gggcggaaga ctcgag 216

<210> 189

<211> 303

<212> DNA

<213> Homo sapiens

<400> 189

gaattcggcc aaagaggcct acaatcttta gcttccatag tgtcacacac tattaatttt 60
ttctcttctt cattagctgc acctactcat tctctttggt ggttctctct catcttcttg 120
acaacttttg cagctgcctc catggcattt ccacttggtt atctattaat aatatttate 180
ctaattgtgt cagaagcaaa ttctgttcc attctacctc ccaattctgc tccaccttca 240
gtcttaccga gttcgattaa agacaactct attcttccac ttgccagac caaaaacctc 300
gag 303

<210> 190

<211> 209

<212> DNA

<213> Homo sapiens

<400> 190

gaattcggcc aaagaggcct atgagaatcc acgcgagacg gagccctcct cgccggccgg 60
cctggacgct tgggatctgg ttctgttctt ggggatgtat cgtcagctct gtatggagtt 120
cttctaattg agcttctctc tcttccacct cttctctgcc ggggtctcac tctcagcacg 180
agcaccattt ccatggcaac aactcgag 209

<210> 191

<211> 195

<212> DNA

<213> Homo sapiens

<400> 191

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gaattcggcc aaagaggcct agtgagttgt tataaaacaa tgctgcctct tctattttgc 60
gctttttgtt tgcacaaact cggccccctt ctgtttctct acgatgtttt gatgcagcat 120
gaggcagtca tgagaacca ccagatacag ctgcctgata ctgaatttcc cagccaacag 180
aaccaaatgc tcgag                                     195

```

<210> 192

<211> 215

<212> DNA

<213> Homo sapiens

<400> 192

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gaattcggcc aaagaggcct agaaagccct gaccctagat tggctgaatc tgaatctgca 60
ttttaacaag atctctagga ataaatatgc acaataaagt tttagggtgca tggctctgtg 120
ccatgctgcc tgtttctgac acaaatgaaa gaaaatcagc tattgaagga agcagggtctc 180
tagatctgac agtccatgtg tcttcttccc tcgag                                     215

```

<210> 193

<211> 275

<212> DNA

<213> Homo sapiens

<400> 193

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gaattcggcc aaagaggcct agtctcgaa ctcctgagttc aagagatccc cccacacctca 60
gcctcccaag tagctgggac tacatgccct tgccctctgct ttgttttcca ttattttctc 120
acatgtcagg cttcattata tgtttcacag tctttattat tattttacctt cctcagctag 180
aatgtgagtc cacaaggata ggtctgaact cttttactca cagcatttct gacccccaaa 240
tatgtgtctt ttgtcctcat accaaccaac tcgag                                     275

```

<210> 194

<211> 282

<212> DNA

<213> Homo sapiens

<400> 194

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gaattcggcc aaagaggcct acgtcgattg aattctagac ctgcctccag gaccctcccc 60
ctttttaaaa aataaatcgc tgacaagtgt gaatcccggt aagactttat tttgtgttgt 120
gtgtatcctg tacagcaagg ttggtccttc gtaacaacgg atgaaatggt tccctttttt 180
aaagcgccct ctctccctcc accctcagcg cccctgtcct tggcatgttt tgtatcagcg 240
atcattctga actgtacata tttatgtagc gagaggctcg ag                                     282

```

<210> 195

<211> 132

<212> DNA

<213> Homo sapiens

<400> 195

```

gaattcggcc aaagaggcct agcttgccca ttttgcttgc caatgttcca tctttcgggt 60
tctgatttaa tgcttgctca tatgtacta tggcttcttc aggctctaga atattcatgt 120
atgcatctcg ag                                     132

```

<210> 196

<211> 224

<212> DNA

<213> Homo sapiens

<400> 196

```

gaattcggcc aaagaggcct agccgtgaga cgtttcggga gccggagtct ctccaccgca 60
gacatgacga agggccttgt tttaggaatc tattccaaag aaaaagaaga tgatgtgcca 120
cagttcacaa gtgcaggaga gaattttgat aaattgttag ctggaaagct gagagagact 180
ttgaacatat ctggaccacc tctgaaggca gggtaggact cgag 224

```

<210> 197

<211> 169

<212> DNA

<213> Homo sapiens

<400> 197

```

gaattcggcc aagaggccta agtgaacta agtaactact gtcagtcaca ttactcctt 60
agcacttttg agtaaactgt ggtttgatct tattttgaca gggtaacaa acttgacat 120
acacacacat acataaacac tcatgcaaat caacttaaaa atactcgag 169

```

<210> 198

<211> 209

<212> DNA

<213> Homo sapiens

<400> 198

```

gaattcggcc aaagaggcct actcaaaaga aggaggaaaa acaaggctct gaaagtgtt 60
atatttcatt agggagggtg agaaaaaagg gacaaaaaag tgactgagaa gtaataatta 120
acaatcagaa agacactaga gttcatcctg ggagccacg agggacaagt ttcaaacttg 180
agaagatgaa gactgcagca gttctcgag 209

```

<210> 199

<211> 306

<212> DNA

<213> Homo sapiens

<400> 199

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gaattcggcc aaagaggcct accgtctcaa aaaataaata aataaatagt ctattgccta 60
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<213> Homo sapiens

<400> 200

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<212> DNA

<213> Homo sapiens

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 aataaattat agaagtgaag gttgcactca ataagcctgt gcttattttt ccatttgagg 240
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 gagacaagtt ctgcctctgt tgcccgggct ggagtgcat ggacagggtca taactcactg 420
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 ttttttggag cacactctt gctctgtcac ccaggcagga gtgcagtggc actgtctagg 180
 cccactgcaa cctccacctc ccaggctcga g 211

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 <212> DNA
 <213> Homo sapiens

<400> 205
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 <212> DNA
 <213> Homo sapiens

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 ccgcccaccc agagggtccc cagagacatc cctgccatgc tccctgctgc tcggcttccc 180
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 <212> DNA
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 ttacattat gcatttaaaa agttatctcg ag 152

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 ggtaagcgaa acatgcatca tggtatgttt ttcttcataa taacctgtct gttgctcacc 180
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 aaactcgag 249

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 <212> DNA
 <213> Homo sapiens

<400> 211
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 tgtgtgcacc ttcatagaga ttttttcctt ttctaaaaga atgaggattc ctctgaatgt 180
 tacactatgc aacaataatg tccccaatcc actcgag 217

<210> 212
 <211> 191
 <212> DNA
 <213> Homo sapiens

<400> 212
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<210> 213
 <211> 272
 <212> DNA
 <213> Homo sapiens

<400> 213
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 tgtataatca attctgtata ataccagaat tcaccttata aattatagtg atttttaaac 180
 atttattctg gactcccat aagttttgag atataaaaat acactgaaat tagaacataa 240
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<210> 214
 <211> 207
 <212> DNA
 <213> Homo sapiens

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 ggtatgaaca gttgtcaatt ctgtaccata gtaagcactg tgatgctatt tcattttgtt 180
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<210> 215
 <211> 231
 <212> DNA
 <213> Homo sapiens

<400> 215
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 <211> 159
 <212> DNA
 <213> Homo sapiens

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 ctgctgccat gctaccatct accctccacc ccaactcgag 159

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 cacttcaggc acacactggt ttattttact gtattattgg attataccgc ctataaatca 180
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 tgaagcaact ctcgag 196

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 <211> 438
 <212> DNA
 <213> Homo sapiens

<400> 220
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 ttctagacct gcctcgag 438

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 <211> 193
 <212> DNA
 <213> Homo sapiens

<400> 221
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<210> 222
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 <212> DNA
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<400> 222
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<210> 223
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<213> Homo sapiens

<400> 223

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gggttagaaa atcctatatt ggacaatctc tattagatga ctaatattat taatctattt 180
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<210> 224

<211> 249

<212> DNA

<213> Homo sapiens

<400> 224

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agagtgatca ttggggaaat tttcctctc agccttattt tggccttttg aaacagcaac 180
aaagactgcc tagtcaaata actccttagc tgattttacc ctcaaatgcy ttttcgtact 240
ttcctcgag                                         249
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<210> 225

<211> 269

<212> DNA

<213> Homo sapiens

<400> 225

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gaattcggcc aaagaggcct agcaggataa agcttaaaca catctcttgt ccattcaaga 60
ccctggggca tctgtttttg ccagcagctc ctcacagggt ccattccatc aaagctgggt 120
cagttattta cctgtccca gaggccatgt tttgcctggt gtcacttggt atgcttctct 180
tatgcaataa tattttgtat gaaggtttct ccaggcact gtgcttgga tcttacacca 240
tatttaatct tcacagcacc agactcgag                                     269
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<210> 226

<211> 211

<212> DNA

<213> Homo sapiens

<400> 226

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gaattcggcc aaagaggcct agtctagatt tctttcaaac aaaaattaaa gagcaagaat 60
cattactgta taaatttttc ccagaggaga aaatttaatt tttccttata tttccaggat 120
tatgcttgtg tcatatatat atatattttt ttctacattt atttttcttt ctttttttaa 180
cttttgtttt aggtttgggtg gtactctcga g                                     211
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<210> 227

<211> 215

<212> DNA

<213> Homo sapiens

<400> 227

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tctccacat tcttcttctc caggggcact cctatgcatt cattgcttct actgccatct 120
ccttcaagac aacttgctcc tggaaaccaa atcaccttc tctctgctcc cacaggaccc 180
tgtgcacatt tatatccgag tactcaggct tcgag                                     215
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<210> 228

<211> 237

<212> DNA

<213> Homo sapiens

<400> 228

gaattcggcc aaagaggcct agccagttag aaaggagctt accaaaggca gtgtacgaag 60
 aagggtcctg ggagactgtc agaaatgagt ttttactga acttcaccct gccggcgaac 120
 acaagcaacc aaccattttg ctttgccctg tggtgtctgt ttttagcact gaaagtcctg 180
 ggcagctctc tggacaatgc ggatgacgtc ctctcctgtc acaggtggga tctcgag 237

<210> 229

<211> 101

<212> DNA

<213> Homo sapiens

<400> 229

gaattcggcc aaagaggcct agtttgtgtg caggagataat gttatctgtc ttaggaggca 60
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<210> 230

<211> 235

<212> DNA

<213> Homo sapiens

<400> 230

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 atgaattttt ttttttacac aaatgagttt tcattgggtc tgtttctttt tatttcttct 180
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<211> 344

<212> DNA

<213> Homo sapiens

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 catctctatc ctgccccatc tgggcccact cagcttctctg tagacacca agacagatgg 300
 acagtgttgg agggaatcag gctttgagga tccagagtct cgag 344

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<211> 323

<212> DNA

<213> Homo sapiens

<400> 232

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 agtatctttg taattttttt ttaagagatg ggttcttgc tttgtgcca ggctggagta 180
 caatgtgcaa tcataggtct ctgcagcctt gtattcctgg actcaagcaa tctcctgcc 240
 tcagcctctt gggtagctgg gactacaggt atataccacc atgcccagct tctttgtgtg 300
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<211> 478

<212> DNA

<213> Homo sapiens

<400> 233

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agaatcgcc ggagggatct tgccttgaaa attaaattct gatatcaatt tctaaaatta 180
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aagtgaacct actttcctat tagcagtcac ctaaaaacaa ataagcaaac aaacaggtaa 300
ctcagtcctc cctctgactc agtgtgagga aaggagcagg cagcatcttg tgacagctta 360
cttcagtggt tctccatggt tcttcaccaa aaccacttgt gtttcctctt caagcaccac 420
agtatcctat gacactaggc cagtgggctc tcaaaccttt ggaattcagg aactcgag 478

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<210> 234

<211> 119

<212> DNA

<213> Homo sapiens

<400> 234

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gaattcggcc aaagaggcct atctagacct gggtaagtta cagaggcaaa taaaaccagc 60
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<210> 235

<211> 253

<212> DNA

<213> Homo sapiens

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tagatctggt tgattcctct gttttagttt tgaaatgtgc atgttatccc agctttccat 120
tatttggttg tctttaagt gtgcctctga tatgttgac ttaaggagag gtcacacctt 180
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<211> 244

<212> DNA

<213> Homo sapiens

<400> 236

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tggttaagtt ggaatttatt ctgttgccag catttaagta gtcattggca gtcctgtttt 120
taagaccttt tggagactgg agctttctgt tccattaagt cttttgttta tactacaaat 180
tgtcacctca cttagtctag atgaaatctg ttactctaca aggaaggtgt tcataaatct 240
cgag 244

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<210> 237

<211> 171

<212> DNA

<213> Homo sapiens

<400> 237

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gaattcggcc aaagaggcct actttgggat tggatgatac agcttttgct tctgtgtagt 60
atacctgtac atacttggtt caggcagcct ttctttaatg ttttcagttg gtttgattc 120
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<210> 238

<211> 200

<212> DNA

<213> Homo sapiens

<400> 238

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gaattcggcc aaagaggcct ataccagtgc attaatcttg gcaaggaaa tgatcataatt 60
tgatactgta tctgttttcc ttcaaagtat agagcttttg gggaaggaaa gtattgaact 120
gggggttggt ctggcctact gggctgacat taactacaat tatgggaaat gcaaaagttg 180
tttgatgatg gctcctcgag 200

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 <213> Homo sapiens

<400> 239
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 ggtgtctgag ccagctcca gaggccagcc ccgctccca cctcgaaggg agggacaagt 180
 tcctgctggc ctctttgata agggcactaa tcctattcat gaggatggag ccctcgag 238

<210> 240
 <211> 250
 <212> DNA
 <213> Homo sapiens

<400> 240
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 ctaggttgag ggggttgaat ttaaaataac atagtcagag aagtcatgaa ggaaaaatac 180
 ctgagacagg ttgttttgca cagatttatg gaaaaagtgt ccagggcaga aggaatgcaa 240
 ggctctcgag 250

<210> 241
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 241
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 ccaccttagg caatctctgt gtaaagttag tttactagat tatttagtga ctgtactgta 120
 gctgaaatag aacgcaatgt tgccaaatag aaaaatactt ttactgggac tgaagataat 180
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<210> 242
 <211> 240
 <212> DNA
 <213> Homo sapiens

<400> 242
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 atgcttgggt atatttttagc gggcttattt ttgaaaggca tctgttactt cagtggcata 120
 aagtgccttc aactgtctgt gcagccatca ccaccattca tctccagaat ttgttctcag 180
 tcccaaactg aaactatacc attcaaacaa cagcgctccc catttcccca tcccctcgag 240

<210> 243
 <211> 268
 <212> DNA
 <213> Homo sapiens

<400> 243
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 ggaagtagca ggcttgcaat cttcaggtaa agaagcagct ttgaatctga gcttcataac 120
 gaaagaagag atgaaaaata ccagttggat tagaaagaac tggtctcttg tagctgggat 180
 atctttcata ggtgtccatc ttggaacata ctttttgcag aggtctgcaa agcagctctg 240
 aaaatttcag tctcaaagca aactcgag 268

<210> 244
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 <212> DNA

<213> Homo sapiens

<400> 244

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gattttccaat gtcgtacttt ttcattgatc ctatcctaaa agtgtgcata agttttattt 120
gttttttacc atttggtttt tggtttgttt tggtttttta cctagagaag tgaaaggggc 180
acccctcgag                                     190
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<210> 245

<211> 286

<212> DNA

<213> Homo sapiens

<400> 245

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ttagatacag aacaattatta tattctaatt gggcttgctt taaatttgta aataaacata 120
aagggttgac aacttttgta tattggaact ctgcaactaa gtacataata tgtatttcca 180
tttggtccaga tctacttttg tgtcttttgg aagtgtttta tggtttactt catgtatgat 240
cctcatgtat atttattatg tttctgtttt aatacgttca ctcgag                                     286
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<210> 246

<211> 222

<212> DNA

<213> Homo sapiens

<400> 246

```
gaattcggcc aaagaggcct attagaaaac actttcctgg tgaagctgaa acattatata 60
attcccttga gccatcttat cagaagagtc ttcaaaactta cttaaagagt tctggcagtg 120
tagcatctct tccacaatca gacaggtcct catccagctc acaggaaagt ctcaagtaag 180
gtcatataaa taatgattac tagtctcttc ctcacctcag ag                                     222
```

<210> 247

<211> 254

<212> DNA

<213> Homo sapiens

<400> 247

```
gaattcggcc aaagaggcct actttagtct gaaccgggat cttacaggag aattagagta 60
tgctacaaaa atttctcggt tttcaaattgt ctatcatctc tcaattcata tttcaaaaaa 120
acttcggagc agatacgaca aaggtctttt atattggcct gagaggagag tggactgagc 180
ttcgccgaca cgaggtgacc atctgcaatt acgaagcacc tgccaacca gcagaccata 240
gggtcctact cgag                                     254
```

<210> 248

<211> 264

<212> DNA

<213> Homo sapiens

<400> 248

```
gaattcggcc aaagaggcct aatttaagga atggtgacta ctgaggagaa ttgcagtctt 60
gaatacttag catattcttc attcattaaa cttttattaa gtgcctgtgc tgtgctagtc 120
actgccaggc agctgcctga tacatgggtc ctctgcctg ggagctccca gtctgagaca 180
gaaagggtcaa cagttctaatt ggcaggagtt aagtgccatg agagcatatg ggagggggcag 240
ccttacagcc aggataagct cgag                                     264
```

<210> 249

<211> 263

<212> DNA

<213> Homo sapiens

<400> 249

gaattcggcc aaagaggcct acgattgaat tctagacctt cctctctcat cttttgctct 60
 cctcttaggt tttctcctta ttttccatag caagagtgtg cagagttttg attgggtgaga 120
 tttaccattt gatatactca cataagttca ggtttcagaa tatctataaa tttatgatta 180
 accaagggtt gttatatata attcacttgg catattgtga ctgtttatc tatccctaca 240
 ctggggtagc accccagctc gag 263

<210> 250

<211> 113

<212> DNA

<213> Homo sapiens

<400> 250

gaattcggcc aaagaggcct aggttgggtga caatgggtatt gtggttatta ggacaattat 60
 ttattttgcc ttggtgtcag aggcgtgtga accagagcaa ctctcatctc gag 113

<210> 251

<211> 244

<212> DNA

<213> Homo sapiens

<400> 251

gaattcggcc aaagaggcct agtgtagctt ggttttattt atgtccacaa atatttcaaa 60
 aaaattacaa aatactcaa tggagagaac acagaagtca cgatttctgg gtgtctactg 120
 tttacactgt gttatctcat ggcaaaactac tcatatatac atttagcttc aagatatata 180
 gaaacgtagc aaatccgagt gtgcacgctg cctctgccgc agtggagtga agctcaacct 240
 cgag 244

<210> 252

<211> 291

<212> DNA

<213> Homo sapiens

<400> 252

gaattcggcc aaagaggcct aaatttatta aggggtagat cactttttaga aaaattgctg 60
 gaagtaattt ttcattgatca tgttatctac attctaaaaa ttaggagaga gactgtgtac 120
 aaagagtgtt tattttagag ctttccttgt atttcaaatt gaataacagg cattctcatc 180
 ataaagtttt taaaagaaag gcaaagcaga ctttctgtag gaaatcattg acgttaaaat 240
 agttataatt gtgaacagat acaacattta ttcattgaagg taattctcga g 291

<210> 253

<211> 195

<212> DNA

<213> Homo sapiens

<400> 253

gaattcggcc aaagaggcct agttattttg ttctgttctg tcatgtgccca caaaatatgt 60
 acttttttca cttttttccc ttgtatatc agttacgggt tacaactgggt tcattctgaa 120
 aacaacaaca acaaaagtcc attcatattt ttttaacaatt gtataagtgc ccaagtaatt 180
 cactacagcc tcgag 195

<210> 254

<211> 284

<212> DNA

<213> Homo sapiens

<400> 254

gaattcggcg ccgcgtcgac tttttgatgg aacacagttc tgtgatggga agctatccca 60
 gtctcccatc cttgcaaaac tgctgcttag tactcaggtg ttctctaggt tgttctggaa 120
 catttacaaa cttcttttggg tgtgaggatg tgctgccaca aggccaaaaa tcacattctc 180

tctctctctc ctctcctctc taccattctc ctcagtgcc a ggtggggaca gattccaccc 240
actgggcctg ggaggaagaa aagcaccttg gccccctct cgag 284

<210> 255

<211> 219

<212> DNA

<213> Homo sapiens

<400> 255

gaattcggcc aaagaggcct acttgggagg ttgtgtgttt ccaggaattt atccatttcc 60
tctagatttt ctagtgtgtg gcagagaggt gtccatagta ggcattgatt gatgatctgt 120
atttctgtag gatcggttgt aatgttacct ttgtcatttc tgattgtgct gatttggatc 180
ttctcccttt tttttattaa tttcgctagt ggactcgag 219

<210> 256

<211> 180

<212> DNA

<213> Homo sapiens

<400> 256

gaattcggcc aaagaggcct agcatactgg tacatgagag cagtagtggt gtttgctctt 60
attttcaacc agggagctat ctggcacctt ttgtgctcct ggcttttttc aatcatagca 120
ctattgcac tcttagctat ttcttttgcc cagcagggt aatattgagtc ccatctcgag 180

<210> 257

<211> 500

<212> DNA

<213> Homo sapiens

<400> 257

gaattcggcc aaagaggcct aggaagagac tagaagaaca gcacgccag caattatcac 60
tactcatagc tgagcaggaa agggaacaag aaagactgca aaaggaaata gaagagcagg 120
agaaaatgtt aaaagagaag aaggcaatga cagcgggaagc ctctgagttg gacattaaca 180
atgcagtgga attagaatgg agaaaaataa gtgactctag ttgctggaa acaatgctgt 240
ctcaagcggga ctcaactccat acttcaaatt caaatagttc tggtttcaca aattctgcca 300
tgcaatatag ctttgtttct gcaaacgaag caccattcta cctctgggga tcatcaacta 360
gtggcttgac caaactctca gtaacaaggc cttttggaag agccaaaact agatgggtctc 420
aagtttttag tctggaata caagcaaaat ttaacaaaat aactgcagtg gcaaaaaggat 480
ttcttactcg tagtctcgag 500

<210> 258

<211> 302

<212> DNA

<213> Homo sapiens

<400> 258

gaattcggcc aaagaggcct agtgcaaaat taaagaattc catgataact atgttatattt 60
ccatttgcac gtgcatttgt ctatcgatcc ctaaaatata tcttaaatta gtctgctttt 120
ctccactttt cccctccat tttattttta tttattttatt tattttgaga caaggcttag 180
cactgtcgcc caggctggag tgcagcaaca caatcacggc tctctgcagc cttgaccttc 240
caggcccaaa tgatctctcc gcctcagcct cagcagtagc tggggcggga ggaccactcg 300
ag 302

<210> 259

<211> 283

<212> DNA

<213> Homo sapiens

<400> 259

gaattcggcc aaagaggcct ataaagatta ttatattaat tcaactttga tctgatatat 60

cacttaaaact aaaggggtgt gtgtggtgta tgcttggttc ctatttctgc tctttaaaga 120
 tactttgaat caataaaaacc attagtctac aaatcaaatt gtgaacttaa tctctagaaa 180
 gagaatataa ctcagccatt tataggaatt taggttcaag tacaggatat atgaaatctt 240
 ttcccgat ttcagaatgt acttaattca cagatcactc gag 283

<210> 260

<211> 279

<212> DNA

<213> Homo sapiens

<400> 260

gaattcggcc aaagaggcct actggcctca agtgattctc ctgcctcggc ttcccaaggc 60
 gctggaatta cgggcagtag ccactgcgcc tgaccagaaa agtgggttac ctgataaagt 120
 ggcatttgaa ctgagatctg aaagtagaat atacttgaag tagatgaaga gaggaatgac 180
 aatattttat agcagaaagg acagcagccc ttggtggcag gaggcaggtt gtattccagg 240
 aacgaaagac caatgcagct gtagtggagc accctcgag 279

<210> 261

<211> 208

<212> DNA

<213> Homo sapiens

<400> 261

gaattcggcc aaagaggcct aggtttgccc ctcccttacag cacagagtta tcatcattat 60
 ccatacacc atagaattca gaacaatctt ttcctagtac tagaattggt gcatcatgat 120
 tattttacatg tccatcttgc aattaataaa aataactaaca atactaacat acgttgggtca 180
 ggcaggcact gcacaaagcg acctcgag 208

<210> 262

<211> 160

<212> DNA

<213> Homo sapiens

<400> 262

gaattctggg actaaattct gtaacatctt cgtggatcgt tctgctactg tgggaaagac 60
 agcattttgt tacagcagag accagaattg agaaaaccag aataaaaaaa ctgttcccta 120
 ggccatgaag gccggccttc atgccttagt tctccctata 160

<210> 263

<211> 226

<212> DNA

<213> Homo sapiens

<400> 263

gaattcggcc aaagaggcct acgttgaagg acaccagctg cggaatttgc ggctttggca 60
 gattgaaatc atggcaggtc cagaaagtga tgcgcaatac cagttcactg gtattaaaaa 120
 atatttcaac tcttatactc tcacaggtag aatgaactgt gtactggcca catatggaag 180
 cattgcattg attgtcttat atttcaagtt aaggtcccca ctcgag 226

<210> 264

<211> 201

<212> DNA

<213> Homo sapiens

<400> 264

gaattcggcc aaagaggcct aatgccatcc cctctgcctg gaatgccctt ctgcatgaat 60
 gcctgtgaaa tgttgttgcct cctttgtatg gcctggcctc cgtggttggc aggaatctct 120
 tctttcgtgg tattcctgtc atcttttgcg accacagtca gctttgtatt cctagcttgt 180
 aagctacggg agaaactcga g 201

<210> 265

<211> 229

<212> DNA

<213> Homo sapiens

<400> 265

```

gaattcggca aagaggccta gtatgtgtgc tttctttgcc ttctatttc ctttcaaaga 60
aatctcttgt aaattacaaa actgtgaatt gggttgccaa aaactgttgc ctttcgttag 120
atgcttcaaa cagtgtaaat cctatactgc accctgtcca cctctgtccc ctctccctc 180
ccctgagagt gaggacctca tccgaccatg taattacat tcgctcgag 229

```

<210> 266

<211> 249

<212> DNA

<213> Homo sapiens

<400> 266

```

gaattcggcc aaagaggcct actttaacca tccctcccta tgaagtataa aaaagggtact 60
gccagctggg tgcagtggct caccgctgta atcgcagcat tttgggaggc cgaggtgggt 120
ggatcacctg aggtcaggag ttcgagacca ggatggccgg catggcgaaa ccgcgtctgt 180
actaaaagta caaaattagt tgggcgtggg ggtgcgtgcc tgtggtttca gctacctgga 240
gaactcgag 249

```

<210> 267

<211> 276

<212> DNA

<213> Homo sapiens

<400> 267

```

gaattcggcc aaagaggcct agtaggggag tgcgtgaggc cggcgctgat tgataggagc 60
caaggccaat cataacgatt accgtagact ggaaggcgga ccaagaatac gctaattgagt 120
tgctaatttt gacagatgtc ctccggcctt ctccgtgtgt tctccattgt gatccccctt 180
ctctatgtcg ggacactcat tagcaagaac tttgctgctc tacttgagga acatgacatt 240
tttgttccag aggatgatga tgatgatgag ctcgag 276

```

<210> 268

<211> 312

<212> DNA

<213> Homo sapiens

<400> 268

```

gaattcggcc aaagaggcct agtcttcaat aaattgatta gtatcaaagg gaagatctta 60
aatcttggag cttttctttt tggaaacctt taattcagtt cctgtcacac cttcctttga 120
tttttaaaaa aatctccctt taactgttct gggatctcac tgctgtctcc acacgcctaa 180
caccatcccc ctccacattc acccaaaggg agacactggg ggaggcaagt gtatggaatg 240
tctttgcatt tagatgctgg aactctgaca tcatctcttt tattcataag tttattcaac 300
actatactcg ag 312

```

<210> 269

<211> 187

<212> DNA

<213> Homo sapiens

<400> 269

```

gaattcggcc aaagaggcct agagtactg aagcacatca aacacaaaga cagtaattat 60
cagaggtgcc ttcttacatc agcgatttat gcactccaag gccgcagtgt ggctgtgcaa 120
aaacaaatat ctaaagctgt tcacagcaac cctggtgacc ctgctctttg gtctctgttg 180
tctcgag 187

```

<210> 270

<211> 328
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (31)

<400> 270
 gaattcggcc aaagaggcct actgcacgtt ntgagcatgt acccatttaa ccaaaactta 60
 aagtataatt aaaaaaaaaa gaataagaat acaacaataa aaatacatat aagaaacaat 120
 ggagtataac agctatttac atagcatttg catcatatta ggtattctaa ctcatctgga 180
 gatgattgaa agtatatggg aagatgtgcc aagggtatat gcaaatacta tgccatttta 240
 taatagggac ttgagtattt gcagatttgg gcattctctg gaggtcctgg aaccagtcce 300
 ctcgataacc aaggtagcgc aactcgag 328

<210> 271
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 271
 gaattcggcc aaagaggcct agcagtaate tctatgatgt tctctccttc tctgcttcaa 60
 cccagagccc tcccttcccc acctctcaga ctctcccact gtgccatgtg gaagtgtcac 120
 aacacaacca catgctctgc tgtatcatct ccttgtcctg aaaagctctg tttgcctccg 180
 acttcattga gacccatcaa actcgag 207

<210> 272
 <211> 301
 <212> DNA
 <213> Homo sapiens

<400> 272
 gaattcggcc aaagaggcct acaaaatata attattccgt aatttcctaa agtgcaacttg 60
 tatgtattga aaagattata gatagaaaca tacataactt ttaaagtgtt tctatgcgga 120
 atttctcatt atgtccagca tgtggtttac catgtttatc atctcctgtt gtcttaaggt 180
 cagggggttg aacaaggag gtcaaaattg gccggggctg agcacaaata cacaccaca 240
 gcccttcagt gacctcaggc agcaagatgc ctcccacctc cccccaacac ccaagctcga 300
 g 301

<210> 273
 <211> 149
 <212> DNA
 <213> Homo sapiens

<400> 273
 gaattcggcc aaagaggcct aggcacgtc tcctcctacc cgaccaacct ccctaccacc 60
 tgaagcctt caacctgcgc atcagcttcc cgccggagta tccgttcaag cctcccatga 120
 tcaaattcac aaccaagacc tgcctcgag 149

<210> 274
 <211> 231
 <212> DNA
 <213> Homo sapiens

<400> 274
 gaattcggcc aaagaggcct aatctacttt tatctatata gtacacatag aaggctatgt 60
 gactatttag aattcaatgt ttgtttacta gttcatcttt agcttacatg ttcattagtt 120
 ctgagtagaa ccaagaaaaa ctaattgaag agtatatgct tatgtattat ctcttgctgt 180
 gatttaacca atcttggtac atgtattact aataaaagtc cccagctcga g 231

<210> 275
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 275
 gaattcggcc aaagaggcct aatctattca aactataaga agattacctg ctgacatacc 60
 tcaatatttc tatagaaatt gcgattgata ttccaattta agggagtaat catctagaag 120
 agacatatat aactggtgag aaaacacatt tggctcggca cacttggtta catagtacgt 180
 ttatatttat gaatgacgaa cagcatgaca tctgaagaca acatcatcaa gagaaagatc 240
 caggatgaac taaaaacaaa ccaaaacaaa tcaaccctgg agaaactcga g 291

<210> 276
 <211> 271
 <212> DNA
 <213> Homo sapiens

<400> 276
 gaattcggcc aaagaggcct acgtcatcat agctcacggc agccttgaac tccagggttc 60
 aagcagtctc tcctgccttg gtccccgag tagctggcac tacagacata cgccaccaca 120
 cctggccttt tttttgagag gagaccttgc tgtgttgccc agcctgggtct tgaactcctg 180
 gcctcaaatg atcctcccaa agtgctggga ttacaagcat gagccaccgt gcccgagcca 240
 cttcataaat ttttagtcag caatgctcga g 271

<210> 277
 <211> 233
 <212> DNA
 <213> Homo sapiens

<400> 277
 gaattcggcc aaagaggcct aaataaacag acgtgtggc tactggagtt cctcctggct 60
 ccttggtgag agtagagagg taatctcgtt ttccaatat aatcttttag gtgtttgcct 120
 caggtaacct ttggaagtag acactgagga tttcagtttg tttgacttcc tgccagctga 180
 gttcaagagg acaagctaata gaatacctta tgtttcttgc acacatctc gag 233

<210> 278
 <211> 283
 <212> DNA
 <213> Homo sapiens

<400> 278
 gaattcggcc aaagaggcct agtgattatt attaaggata gtaacccttt ggcattattg 60
 ctgcaaattt ttctctaaa tttttactca ctttctagct attggcttg atgtttctga 120
 cataaagaga tttttaattt ttatgtgtta tatctttgga tctttttctt ttttatttct 180
 ctggttatct ttacacttag aaaattctca tgtacgccag gtgcgatggc tcatgcctgt 240
 aacccagca atctgggagg ccgaggatgg tggatcactc gag 283

<210> 279
 <211> 222
 <212> DNA
 <213> Homo sapiens

<400> 279
 gaattcggcc aaagaggcct acagagataa tctggcttgg tttaccccat aatctaattt 60
 cagaaaagaa agctttattt taacactcat ctgaatcaac attaaagcct tttctctcaa 120
 agcgtttatt gagaaactca aatgaatata ctttttgaat tactgtcatc aaaagtgtac 180
 ggcttctctg gctgcttgg tcaaatggaa ccggacctcg ag 222

<210> 280
 <211> 347

<212> DNA

<213> Homo sapiens

<400> 280

```

gaattccgcc aaagaggcct agtaaatcca ccacaaaaat tattaatcct cttgagagaa 60
acgtgaaacg ccacaaaaat agagaaaatt cagggtctgta tgtcatggat cgtgttggtgta 120
ttttcagaga acatcccgtc tctgaagctg ctgcagctcc ctctcaggg atcacactgc 180
cgtcaccacac tctgcactgg ggcgtttcct actgcgcctc gtgctggcgg acgcagctgg 240
gtgcagaagc tgtggggctg gagaggcgtt tggagaaggt ctgtggtgca gtgtgtgaaa 300
attcaggtgc tagaagccta ctggtagaaa aacccaaaaa gctcgag 347

```

<210> 281

<211> 159

<212> DNA

<213> Homo sapiens

<400> 281

```

gaattccgcc aaagaggcct accaactctg gacaaattga tgacccccag gagcagcaca 60
gagtcacag cagcaacctg gccctcatcc aggtgcaggc cactgtcgtg gggctcttgg 120
ctgctgtggc tgcgctgctg ttgggcgtgg tgtctcgag 159

```

<210> 282

<211> 207

<212> DNA

<213> Homo sapiens

<400> 282

```

gaattccgcc aaagaggcct aatttttggg gggttttagtg atcagtaatc aaatttgtag 60
ttattatgct tgttcaggta atttacttga ctgttctatt tgtttgtcca aaagataaaa 120
tgatgagaga gattcgagag gtctttgatc tgtctccctt ttaagaaatg aagccagctg 180
gtaatgtata ttcaggaccc tctcgag 207

```

<210> 283

<211> 328

<212> DNA

<213> Homo sapiens

<400> 283

```

gaattccgcc aaagaggcct agagtacttt tgcataatatt atttaacccc tccaacagtg 60
ctttgaggaa gataactatt tttatcccaa tttgctcgta gggaagattg cttgaagtca 120
cactaaatag tagagccaga attcaaaacca aagctatctg atccagttcc taccattctt 180
aaccattctg ctaatttcca gaagtcacgc tgataaagtg taaaacaaaa gttgtttggt 240
gctgttacca agaaaatata agggaaatgct ttctactaat acatcagcag cctctcttct 300
tcttccctc tctctccta ctctcgag 328

```

<210> 284

<211> 323

<212> DNA

<213> Homo sapiens

<400> 284

```

gaattccgcc aaagaggcct agtggagaag aagaaagcca ggatccccac actaccaacg 60
atcagaagtt tgccccacag gaagagggaag tcagtaactt tatccaggac agccactctg 120
ataatgtttc tcatgagcag gaagaaggca ttcttgcccg aggtgcagaa attggtgccg 180
tagatggcaa tcatgatgta ggcattccta ttaagggaatt tgatgaactt ctccaggcac 240
cagaagcagc atttgagaca ggtcatgagg cacttgggcaa acttgttctc tgcagctttc 300
agccgctgat ccaggtactc gag 323

```

<210> 285

<211> 410

<212> DNA

<213> Homo sapiens

<400> 285

```

gaattcggcc aaagaggcct accacgatga cagattacgg cgaggagcag cgcaacgagc 60
tggaggccct ggagtgcatc taccctgact ccttcacagt attatcagaa aatccaccca 120
gcttcaccat tactgtgacg tctgaggctg gagaaaatga tgaaactgtc cagactaccc 180
tcaagtttac atacagtga aaatacccag atgaagctcc cctttatgaa atattctccc 240
aggaaaatct agaagataat gatgtctcag acatttttaa attactagca ttacaggctg 300
aagaaaatct tggatatggtg atgattttta ctctagtgac agctgtgcaa gaaaaattaa 360
atgaaatagt agatcagata aaaactagaa gagaagaaga aagactcgag 410

```

<210> 286

<211> 387

<212> DNA

<213> Homo sapiens

<400> 286

```

gaattcggcc aaagaggcct atgcggtttc aggttttatt aacaaacggt gtaaaaaacc 60
agacggatct ggaggaaggg acagggctgc ccgtctcagc tctcaacctt cccagagagg 120
ggccaggcct ggcagccctg tgcgtcgcgc ctccaaagca gtcaaccttg tccccctcaa 180
ggacaggcat ctgacccaat ccagggtcca gggaggcgga gtcgcaaacc ctaactctgg 240
ggtgtattct gctcggcctc ctctccccct cccagatag ctctcccagc ctggggcgacg 300
gacagcacag actttgcaga catcacccgg ggagggttct cagtgcagac aggagctgag 360
gtaggggttg gagaggctga cctcgag 387

```

<210> 287

<211> 369

<212> DNA

<213> Homo sapiens

<400> 287

```

gaattcggcc aaagaggcct aaaagtatct actagaataa taattccctg gccctattgt 60
cctttatttt aaaaactatt ctggtatatt gctacatttc tttttctcta caaacttaaa 120
attattttgc cactttatcc ttccataata aaccatatcc gtttttattt tagtgaagtc 180
acattgaaag tattaactgt ttgcataaga tattcttgta atatccagga tttcttataa 240
gaactgagat tttttaaaaa ttattttctg tctcagtaaa gcttttttct acacagatat 300
ctaaatatgt cacttaaggc aattactagt tgtttatttc atgtaatat attccggggt 360
gctctcgag 369

```

<210> 288

<211> 211

<212> DNA

<213> Homo sapiens

<400> 288

```

gaattcggcc aaagaggcct agaaaagttt cctgtctcag atttttcact gtgctgcact 60
gaagtttcgt ttgagtgttg ccccatcaca gcaaagtgtat gttacttatt tccacacata 120
acagattatg ctttcattaa catcccagct gctgcatttc tcttcagct ttttaacttc 180
cgtaaatcca catctttaca tgttactcga g 211

```

<210> 289

<211> 581

<212> DNA

<213> Homo sapiens

<400> 289

```

gaattcggcc aaagaggcct aggaatagca aatagaagtg ctagtattta ctatagtcag 60
tgattgtcac agttggtttt aagtaaaaca gattgttttt gattattttg aaatcaggca 120
ataatatata atgctgttta cagttcttta aaaaatatgt aacttaaaaa ctacagattgg 180

```

gaaggggtaa caatctgagt ttttcttttt ctctaagtgt tctgtgaaaa tcttttttta 240
 agtcgttccct acctcaggta ttatcacaaa tgtttgattt ctatatgtat gccttaagtg 300
 atatatgaca ctttttttcc cttagactctt ccttgcgga aatttcattac ttgttcatag 360
 tttgaatcta agaaatattt gcttttcata gtcagcaggg ccaaaacttt ggtcttgaca 420
 actttttgtc aggcatattc acatatcgac agtggtttttg cataaactgt attgcttttg 480
 caagtatata gtaaattttt ttcttaactc tcagatgtta tagtatcaaa aattcaaaga 540
 cctaagtttt aaaaatgtaa ttgtttgcag taatactcga g 581

<210> 290

<211> 264

<212> DNA

<213> Homo sapiens

<400> 290

gttctaactg ccttcttttt tctcacagag gtggcttatg gcagattttt cctccttcaa 60
 actccaaaaca taatttttaa gactatgtgc cagtggactc ttcccttata tctctgcacc 120
 acaagttgtt ggatgtttcc tcttctctcc ttatgtctac ctcaccaacc tcgctcatca 180
 tttggccctt atccttctct gtacacctac cttcagattt ctgcttacac ttgatttca 240
 gagcttttat ccccgactct cgag 264

<210> 291

<211> 151

<212> DNA

<213> Homo sapiens

<400> 291

gaattcggcc aaagaggcct acgaatacct tcatttacct gtgtcttctg ataacacctc 60
 tcagaaagct atagttcttg aaagtttcta taggatttct aaaatttcaa atatgcagtc 120
 acttaaaaaa aaaccacacc acgtactcga g 151

<210> 292

<211> 476

<212> DNA

<213> Homo sapiens

<400> 292

gaattcggcc aaagaggcct attacctgta gtttgctttt tattggatat ctatttatta 60
 tatatacata cttttaatga agcataataa atatatgaga atgtgcacat atcaaagtca 120
 caactgtgcc aatttttaca ctgttcactt ttgtaaaca tactcagatc aagaaacaga 180
 acattagcaa taagaacata gcaacaaagt gccttctcgt cctccttctt tctagtact 240
 gcctgcctct tcaaaagtta cccttgctga cttgtaacta ctgactagt ttaatctatt 300
 tttggacctt atataaatgg aatcatgcaa ttatatatat atatttattt ttatgactgg 360
 cttcttattt tccacattat gtgagcaaga ttcattccata ttgctgtata taggttctca 420
 ctacttcata atctatatgg tatttcatta tgtcactaca acaaggttcg ctcgag 476

<210> 293

<211> 503

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (28)

<220>

<221> unsure

<222> (93)

<220>

<221> unsure

<222> (111)..(112)

<400> 293

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gaattcggcc aaagaggcct agccattntc ctgcctcagc ctcccagagt gctggggctg 60
cggtgtcccg ccgccacgcc cgactaattt ctngtatttt tatttttttt nnagtagaga 120
tggtgttttcg ccgtgttgcc caggatgggc tcaatctcct gacctcgtga tccacccgcc 180
tcggcctccc ggggtgctgg gattacaggc gtgagccacc gcgccggcc ttttttagaa 240
ctttctagga atctgttttt ccaattgctt tgtatctcag gctctctgcg tctgtcagaa 300
ctgctactgc atgtataaca ctgtctttaa tgttcacttt tgtgttcaga tatttgtata 360
ttcagttttg ttgactgtag ttttccttaa gggttttctt aaagcaatga ctatttatta 420
tgtttctcta tgttctaaaa cttagtgcac tgtgtctac cttatgctta ctgtatgtga 480
caacttttca gggaaacctc gag 503

```

<210> 294

<211> 264

<212> DNA

<213> Homo sapiens

<400> 294

```

gaattcggcc aaagaggcct acttgctttg tgtatctcat ttaatttggt ataaggtagt 60
actgattttt gcatattaat gcgatttctt ccttggtggt tgctttgggc tgtgttcaat 120
ccagagagct taaattgtca ttattttggg aagaaaacct gtatttttgt tagtttacaa 180
tattatgaaa tttcacttca ggagaaactg ctgggcttcc tgtggctttg ttttcttagt 240
tactttttcc gtgcctgcct cgag 264

```

<210> 295

<211> 218

<212> DNA

<213> Homo sapiens

<400> 295

```

gaattcggcc aaagaggcct aaaagttaaa aataggcttt ttaggaactc actctttaga 60
tatttacatc cagcttctca tgttaaataa ttgtccttaa agggtttgag atgtacatct 120
ttcatttcgt atttctcata ggctatgcc a tgtgcggaat tcaagttacc aatgtaacac 180
tgccacagcg gccacgaat ctccatgtgt acctcgag 218

```

<210> 296

<211> 243

<212> DNA

<213> Homo sapiens

<400> 296

```

gaattcggcc aaagaggcct agtagtaagc agtgcctca atagcatcct ttaggtaaac 60
tctgagattc atttcattgg gctttttggt ttattattat tatttctcag tattgtttta 120
tagcatcaca ccaaagtaca gtacagtaaa agcagtctct acctgtctag cttgatagag 180
gtagattttt agagaatcca aggcaatgag taggtaatgt tcatctttca agcagttctc 240
gag 243

```

<210> 297

<211> 299

<212> DNA

<213> Homo sapiens

<400> 297

```

gaattcggcc aaagaggcct attttctttc cctaaatgct tcatctcctt acccctcctg 60
cagtgaacct aatgtcctcg atgactccca gggcctggcc gccgagggca gcctctctag 120
gtacagtgtc aatgtacct gtctattggt gtctgtgctg ggaaactagc tgttcctgt 180
ctcctctgtc tctctgtctt ctctgtctct tctcgcccg tcttaataac tatttccatt 240
ccttgccctt tgttgttcat gaacatatga gcctggaagt caaagggtga gcactcgag 299

```

<210> 298
 <211> 221
 <212> DNA
 <213> Homo sapiens

<400> 298
 gaattcggcc aaagaggcct agggtaatag aaatgagata tggttttggt attcctggat 60
 tagccatcta ctgggctggc agccctcaca tggctggcct gccctgtctc gtgagatgga 120
 tcagccttga ggtgacctgt caggaaagga catttgggct ggaagtagca gaagcctctg 180
 ttagccatcc ttcaggcaga actagtcagg agcagctcga g 221

<210> 299
 <211> 247
 <212> DNA
 <213> Homo sapiens

<400> 299
 gaattcggcc aaagaggcct aggaattaag gtcaaaactaa ttctcacatc cctctaaaag 60
 taactactct ttaggaacag cagtgttctc acagtgtggg gcagccgtcc ttctaatgaa 120
 gacaatgata ttgacctgt cctcttttgg cagttgcatt agtaactttg aaaggatat 180
 gactgagcgt agcatacagg ttaacctgca gaaacagtac ttaggtaatt gtagggcgag 240
 cctcgag 247

<210> 300
 <211> 269
 <212> DNA
 <213> Homo sapiens

<400> 300
 gaattcggcc aaagaggcct aatgtaatga tgattggaaa aatgatgata gacatgatgt 60
 actttgtcat cattatgtct gtggttctga tgagctttgg ggtcgccagg caagccatcc 120
 tttttcccaa tgaggagcca tcatggaaac tggccaagaa catcttctac atgccctatt 180
 ggatgattta tggggaagtg ttgctggacc agatagaccg taagcaagtt tatgattctc 240
 atacacacaa gtcagctccc ttgctcgag 269

<210> 301
 <211> 159
 <212> DNA
 <213> Homo sapiens

<400> 301
 gaattcggcc aaagaggcct agtcgtccct tctgtttact cctttttttg atatattatt 60
 ttcttgtccc tatctgtatt taatagactt tccttttttc atttctcttc tctactgatt 120
 tgaggatga atactctgtt tctatttgtt atcctcgag 159

<210> 302
 <211> 154
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (109)..(110)

<220>
 <221> unsure
 <222> (127)

<400> 302
 gaattcggcc aaagaggcct agtggggtga acggcagctt gaagaaatga ctgttctctt 60

tctgaaattc ataattctat ttctgtgac cccaacccgc aaagggetnn tttttttgga 120
aagcctnaaa aaaaaaaaaa caccacgct cgag 154

<210> 303

<211> 210

<212> DNA

<213> Homo sapiens

<400> 303

gaattcggcc aaagaggcct aatttaagaa cattgaaatt acatcaagta ctctctcaga 60
ctacagtggg ataaaattgc aaatcaactc ctaaaggcat ccccaaacca tacaaataga 120
tgcaaatata ataaattgct cctgaatgat cattgagtca acaaggaaat caagatggaa 180
attaaaaaat tatttaaaat gagtctcgag 210

<210> 304

<211> 439

<212> DNA

<213> Homo sapiens

<400> 304

gaattcggcc aaagaggcct aggggatgtt tggaagagca gaaatattag ttggttttta 60
atatgtacct tgttgtact taaaaatagg aaggatgacc tctgttatgt aatggcagaa 120
tgcttagcaa aattttttcc tgcagttatg tagaaaacac agctttcagt ccataaactt 180
gtatataatag ttaaggagat tgtcaagcaa agtgctaaag gtgccaggag cctatagtaa 240
actgccagag tatttaggct atttcaagag attaggagtt gtcctgtata tcctctcatt 300
caagccagag ggcctctagg aagaggaaca aaaaatgaag aagagggtat gataaaaaga 360
tttatggata tgacttttgt ctaatcgagc aaaaatctat agatggaaat ctatacgtaa 420
ggcccacaaa gtcctcgag 439

<210> 305

<211> 564

<212> DNA

<213> Homo sapiens

<400> 305

gaattcggcc aaagaggcct atcgagagac tgcagctcga caggaatgct acccagaact 60
gaagcctgtg cagtcacatca acgcccaccc ttccaactgc atctgtatca agtttgacct 120
catggggaag tactttgcca caggaagtgc agatgctttg gtcagcctct gggatgtgga 180
tgagttagtg tgtgttcggt gcttttccag gctggattgg cctgtaagaa ccctcagttt 240
cagccatgat gggaaaaatgc tggcgtcagc atcggaagat cattttattg acattgctga 300
agtggagaca ggggacaaaac tatgggaggt acagtgtgag tctccgacct tcacagtggc 360
gtggcaccct aaaaggcctc tgctggcatt tgctgtgat gacaaagacg gcaaatatga 420
cagcagccgg gaagccggaa ctgtgaagct gtttgggctt cctaattgatt cttgagagga 480
ggttgtaggg agaggaggcc ccggcagagg tcttccttca tgtggttagt ttggtctgtt 540
ctctcggagt ggggtggcct cgag 564

<210> 306

<211> 258

<212> DNA

<213> Homo sapiens

<400> 306

gaattcggcc aaagaggcct acttgaacag tcaagaacaa attaaagttt ccacggcaaa 60
tttgttttca aaatgccgaa ttgcgaaaca attgctggct tcacgtttct gaataccttt 120
aatagtttct ctgcgttgca gttgtgaagt ttctttgtca tgacacagtc gataaataaa 180
gaaacccagg tgatcaatgt tttcaatgag atcagtaata accatgtgct catgaatcag 240
ataggactga ggctcgag 258

<210> 307

<211> 352

<212> DNA

<213> Homo sapiens

<400> 307

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gaattcggcc aaagaggcct agggaaggtt ggttccccgt ctgtctccct gcctcttctt 60
cctctacggg tccctctgct ccacaggggt agaacatcaa tctgtgcgag gaaggccagg 120
cggaggggtgt acccactgcc ttgcactggc cttctcccta gagggccggg aggcaggaag 180
agccatttcc tgtggggcca cagcactggg cacagttaaa agtagcaggg ccagatatg 240
ccttgggact ccagtgtgag cctcgtcctt gttccagct ggaaggaagg caccctcttg 300
cccaagacag gacactttgc tgctggggc cagcacctgc tgaatcctcg ag 352
```

<210> 308

<211> 405

<212> DNA

<213> Homo sapiens

<400> 308

```
gaattcggcc aaagaggcct actcaggtca gggaggaggc aggggagtgg ggtctcccag 60
acccaacggg gagctcagag caagcttcac gcaggacgct ccgaaacact gtgtggaggg 120
ggctgtgttg tgggcacctt ggggcctgat tctccttcct ccgaacgggc tccttgatgg 180
cctggccaça ggggcagctc ccattggct gttaggacca gagtgtgaag aagaagtga 240
atataaatat gtatacatat ataaatatat ttttaattac atgtcgtgac acggtggctc 300
cagacatact gtttgcttag tttattccac tgcttgaaag cgcttcctag ccaatctgaa 360
caacaacact ttaagctgtt tttctaaatg caggtgctac tcgag 405
```

<210> 309

<211> 207

<212> DNA

<213> Homo sapiens

<400> 309

```
gaattcggcc aaagaggcct aattggagga cagcccctgg ggtttgatga gtgtggcatc 60
gtggcccaga tctcagagcc cttggctgct gcagacatcc cagcctacta catcagtact 120
ttcaagtttg atcatgcact tgtccccgaa gagaacatca atggtgtcat cagtgccttg 180
aaggtcagcc aagcaaagaa gctcgag 207
```

<210> 310

<211> 252

<212> DNA

<213> Homo sapiens

<400> 310

```
gaattcggcc aaagaggcct attctggaac actatagtaa aggtatttcc tacttggctg 60
gcgcccaatc tgataacttt ttctggcttt ctgctggctg tattcaattt tctgctaatt 120
gcatactttg atcctgactt ttatgcctca gcaccaggte acaagcacgt gcctgactgg 180
gtttggattg tagtgggcat cctcaacttc gtagcctaca cgctagatgg tgtggacgga 240
tgcaaaactcg ag 252
```

<210> 311

<211> 227

<212> DNA

<213> Homo sapiens

<400> 311

```
gaattcggcc aaagaggcct agtgatttac cattttatcc aaaaaaatta gaagaagagg 60
acagaaatct agttgtcttc aggtccatt tgattgaggt gttattcctt tgcctttgaa 120
ttatatattta ggtagggcg aatggaaact ttatttggat tgcacatctg attatattgt 180
gaacatcaac cttgggtata ggaaatttca ttatgaggct actcgag 227
```

<210> 312

<211> 188

<212> DNA

<213> Homo sapiens

<400> 312

```

gaattcggcc aaagaggcct ataaaccgct gattgaattc tagaactgcg ctccagcctg 60
gacaatagag ggagactgtg tctcaaaaaa aaaaaaaaaa aatctgtatg gaggaggtct 120
tacaaatatt agtaaccaca ctttttgttt tttttcttca acttttcagt tttggggcaa 180
cactcgag                                     188

```

<210> 313

<211> 412

<212> DNA

<213> Homo sapiens

<400> 313

```

gaattcggcc aaagaggcct agagcaaaat tactgagttg ctctttatcc tttcgttgac 60
tgtcagacct acatttttcc tcagattgca ttatttgatg cttacattgc attttttttt 120
tcttttgaga tggagttttg ctcttttttc ccaggctgga gtgcaatggc gtgatcttgg 180
ctcactgcaa actcgcctc ccggtgtcaa gcgattctcc tgcctcagcc tccaagtgg 240
ctgggattac aggtgtgcac caccatgccc agctaatttt gtatttttag tagaaatggg 300
gtttcccggt gttggtcagg ctggtcttaa actcctgacc tcatgtgatc caccgcctc 360
tgtctcccaa agtgctggga ttacaggcgt gagccacgac tctaggctcg ag 412

```

<210> 314

<211> 230

<212> DNA

<213> Homo sapiens

<400> 314

```

gaattcggcc aaagaggcct agattaaatt agttaccagt aaataataag tttgttttgt 60
gaatgcatat gtttattgtg tgtttattta tttatttatt ttctgcaggg gacaggctct 120
taagtgtaca ctgggtggcc gcttgccaac tccgagtggc tccctccccc acacaaatgt 180
ttattgatct ttttcctccc agtaatgtgt taccagggtg tccctcagag 230

```

<210> 315

<211> 259

<212> DNA

<213> Homo sapiens

<400> 315

```

gaattcggcc aaagaggcct aagcttttac agtggactct ggtattttat agttctccac 60
tggcagctga aatacgtgcc acagtctcaa tcggcaggca ggacaactta ggacataatt 120
tattaaaaag cagattcttt tattagatta aatagtaaac aaaatgattc aaataatggg 180
ttatttacat ttctgcatcc ttggagtaaa cacctacttg aagcataaag ctagagaaga 240
aatcaaaacg tctctcgag 259

```

<210> 316

<211> 217

<212> DNA

<213> Homo sapiens

<400> 316

```

gaattcggcc aaagaggcct agtgacatca tatgagtttt cccaaaagtt tcttcctaatt 60
ttgcctccta catatctctt ccctgatgtc cagaataatt tacggtcctc tccccatcgg 120
gtgtgtgtgt gtttgtttgt ttgttttttg tgactgcgag gaggggagtg gacccctcaa 180
ccatgtgcgt gccccactg ctgccatccc actcgag 217

```

<210> 317

<211> 251

<212> DNA

<213> Homo sapiens

<400> 317

```
gaattcggcc aaagaggcct accatcatca tctttgccac tgcattgttt tatgtgaga 60
agggcacaaa caagaccaac tttacaagca tccctgcggc cttctggat accattgtca 120
ccatgaccac gcttggtac ggagacatgg tgcccagcac cattgtggc aagattttcg 180
gggccatctg ctactcagt ggcgtcttgg tcattgcct gctgtgcca gtcattgcat 240
ccaacctcga g 251
```

<210> 318

<211> 239

<212> DNA

<213> Homo sapiens

<400> 318

```
gaattcggcc aaagaggcct atggatatgg tattttatat ttgtttctg tcttgaatt 60
atagaaaata aaacgatata aaggcatttt atgggttttg ttgatagctt attatattac 120
attgaaaagg aatcaaatg ctctcttgca ttctaactc aatatttacc taaatgtttt 180
ttgtgtctgt ccttttatt ctgtttactc tggatatcgc ctgctgtccc ccgtctgag 239
```

<210> 319

<211> 233

<212> DNA

<213> Homo sapiens

<400> 319

```
gaattcggcc aaagaggcct atcgaaaacc tgcacccttg cgtgtcctcc tagaccacaa 60
agaggcccaa gaaaaatcgg atttagtgct ccttactgat gcattatcga aaacctgtta 120
gagtcctaag cgttctctg ttagtattgg gaccttacca ctgtcctata aatatgttat 180
gccccaaaaa tgaagtggag ggccataccc tgagggaggg aagggatctc gag 233
```

<210> 320

<211> 307

<212> DNA

<213> Homo sapiens

<400> 320

```
gaattcggcc ttcattggcct agctgccctt ctctagttct ggtggccctt ctctaattgtg 60
tctcttcttc ttaggcttgt ctgcacacag atgtgcttcc tgcttatgaa tttaggagaa 120
ctacatccat aaattacatc acacctttcc tgcctacatg caattttcct agacttcaaa 180
attttcaaaa ccagagagat caagatgcac aggcttccac tcgatgtccc ttgctgtatt 240
ctgaggctaa aaagactaac actgatttag tggtgtctg caaggtaaaa gcattgcttt 300
gatcgag 307
```

<210> 321

<211> 353

<212> DNA

<213> Homo sapiens

<400> 321

```
gaattcggcc aaagaggcct aattaaagaa ggagaagcaa gcggatttca gagagggtgt 60
tcttcagaaa aaaaatggtt atttctttga actcatgcct gagctttatt tgtttattgt 120
tatgccactg gattgggaca gcatcacctc tgaatcttga agaccctaata gtgtgtagcc 180
actgggaaaag ctactcagtg actgtgcaag agtcataccc acatcccttt gatcaaattt 240
actacacgag ctgcactgac attctaaact ggtttaaatg cagcgggcac agagtcagct 300
atcggacagc ctatcgacat ggggagaaga ctatgtatag gcgcaatctc gag 353
```

<210> 322

<211> 213

<212> DNA

<213> Homo sapiens

<400> 322

gaattcgcca aagaggccta gaaaagagag tccttaatgg aatggctgaa ttcattgctc 60
ctactacttt gtttgtatat atatcctcat agtcatcaag taaatgattt ttcttcactg 120
cttaccatgg acctgggacg ggtagatata tttaatgaat ccagattttc tgttgatatac 180
acacctgtca ccaacacgac ccaacttctc gag 213

<210> 323

<211> 182

<212> DNA

<213> Homo sapiens

<400> 323

gaattcggcc aaagaggcct aattgaattc catatatgac tggcggacgg gtcattgagga 60
tgctggcagt aatactcttg gtagtgtttt ggtttctcat tggctggact tcatctgtgt 120
gccagaattt ggagaaacag atttcactta ttggccaggg gaaaacaccc gatcacctcg 180
ag 182

<210> 324

<211> 263

<212> DNA

<213> Homo sapiens

<400> 324

gaattcggcc aaagaggcct aggcagcagg tgtggccagt ccctctgcca aggcctgtgc 60
cagagggggtt ggccagttgg agcctgggtc agcctcagca gcctatcccc atgtcctcta 120
tgcccctaatt ttgcttcctc atcttgaggg gtttggggag aagttggcgt gccaccccca 180
caaccctga ggaggtgtag acccagtctg agagccgcaa gcactgaggc agggcctgag 240
actggacctg ggtgtcgtc gag 263

<210> 325

<211> 230

<212> DNA

<213> Homo sapiens

<400> 325

gaattcggcc aaagaggcct aggcgtgaag tgtaaaatac acaccagatt tcaaagaata 60
aatatatgct aaaacaatag ttggatatt aaataccttt ggcctttgca acatttgaat 120
tccaacaacg gatgaacttt atataccatt tgatgaatat catctatttg gataatatcc 180
ttagtattta cagatttaat attccaagtg ttaatgtacc acccctcgag 230

<210> 326

<211> 206

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (71)

<400> 326

gaattcggcc aaagaggcct agaatgtcac agcatcttga cacaaatttg cctatgcctt 60
tgatttttgt ngttgttgtt gttttttatt ttttgagacc agagtcttgc tctgtcaacc 120
caggctggag tgcagtggcg cgatcttggc tcaactgcaga ttctgcctcc caggttcaag 180
cgattcatgt gcctcagcct ctcgag 206

<210> 327

<211> 338

<212> DNA

<213> Homo sapiens

<400> 327

```
gaattcggcc aaagaggcct agtggtgagg agcctttaaa ctagagccca cgcttacctg 60
tgaagctgtg acgtctccta atgtggttgc tttgcgtatt caacttagga catttggttt 120
tactgttaaa ccacggtttt gtttggttgc tacagtttga caacttaa at gctgcgcag 180
aaacctctaa gttggaaatt gaagctagcc actcagagaa acttgaattg ctaaagaagg 240
cctatgaagc ctccctttca gaaattaaga aaggccatga aatagaaaag aaatcgcttg 300
aagatttact ttctgagaag caggaatggc atctcgag 338
```

<210> 328

<211> 200

<212> DNA

<213> Homo sapiens

<400> 328

```
gaattcggcc aaagaggcct aatcaaagtt gaccgaaaga ttttgaaaat ccttaccagt 60
tgtttgcct atgttaaagt cttatgggtta attttattta ttttatcttg ttctcttgct 120
ggttattggc agactcagtc ttctgtttt cacaagaac tcatgaagag gacgataggg 180
aaaccacagt gtcactcgag 200
```

<210> 329

<211> 259

<212> DNA

<213> Homo sapiens

<400> 329

```
gaattcggcc aaagaggcct aattaattca aagacctgta ctaacattct gaaatatctg 60
ctagccgtaa taaaaaatt aatgtacttt atgttcttag ctcccacaat ttagccta aa 120
tatttgccct agcatgctta tactgaatcc aagcaaacat tgcatagcc gttctcttc 180
tttatttaa agcgttttta cctttctcag catcctgcaa gttacttct ccttctcttg 240
ttctctctta cctctcgag 259
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<210> 330

<211> 248

<212> DNA

<213> Homo sapiens

<400> 330

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gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cccaaaatat 60
atctggtacc caatttcata ggttccattt tctaaacatt attttataag ctcttatctt 120
tgacgtcatt gcttttactt taggccatca acatttcctt ctgcactatt gttactgccc 180
tgccctatag ctttgagaat ctctctcatt ccaagtggaa ccccatgttt tttagaaatt 240
tgctcgag 248
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<210> 331

<211> 137

<212> DNA

<213> Homo sapiens

<400> 331

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gaattcggcc aaagaggcct aatttagggg cgttttcagt cttgatacca cagagaatgt 60
tgcatttgat aacctacata tgttgtttca tgtgtatagc tgtatgtagc gggtcagtac 120
gtgatgcgga actcgag 137
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<210> 332

<211> 213

<212> DNA

<213> Homo sapiens

<400> 332

gaattcggcc aaagaggcct actgttaaat taccctctat taaacatttt tccacttatg 60
 gtctcttttc taacttcagc tgccccagcc aagtgccact cttccttttg tactttgttc 120
 cttttagaag tatcttttgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtca 180
 tatgcaaatg acaaggcaaa atggcaactc gag 213

<210> 333

<211> 266

<212> DNA

<213> Homo sapiens

<400> 333

gaattcggcc aaagaggcct agaactctgac ctgccagttt tgtttttaga agaacagaat 60
 ttagtggtac agtttttttc aggatgcagt atcttttggt gatcactctt tttcttcattg 120
 tacaggctcc aatggctttg ttttaccctg caacttttgg aatcgttggc cagaaaatga 180
 cgacttttga gcacagatct cagggcgatc ctgaggatcc tcacgatgaa cattacctgc 240
 tggccacaca gagctgtgtt ctcgag 266

<210> 334

<211> 215

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (115)

<220>

<221> unsure

<222> (150)

<400> 334

gaattcggcc aaagaggcct atgagtaaca ggtactgtat gtttagcatt ttgaggaacc 60
 accaaactct tctccaaagc agtggtacca ttttacattc ccaccatcag tgcangtggg 120
 ttctgattct ctatatacct gccagccctn gttattctac tgggtgtgaa gtggtatctc 180
 aggtgggttt gggtttgcatt tccccccccc tcgag 215

<210> 335

<211> 384

<212> DNA

<213> Homo sapiens

<400> 335

gaattcggcc aaagaggcct aggcagacca actggcccaa aacagagctc cttttcttct 60
 ttgttctgcc tggactgggt ctttaacctt ttctcctatc tctttctcct cttgatgtta 120
 aatgttactt tgtcatggaa tgtttaactt gtaacattta tatattgatt aattatacta 180
 ttatgtatgg tttacaatat tgactggcct gcgtgcccac agctctgact actgagtga 240
 caggaagtac tgttagctgt ggaaggtata cagatcatca gcagtaaacc catacaggcc 300
 tgaagcaacc tcaattcttg cctcctcaga agaaagaatt ccaactgagg gcataaggca 360
 gaaggagaaa ccgcggatct cgag 384

<210> 336

<211> 207

<212> DNA

<213> Homo sapiens

<400> 336

gaattcggcc ccgcgtcgac tcattctctt cccccctttt acctcatgcc aggtcccaag 60
 aagaatcacc accttttgca gaaaatgatg gtaattttta ttttatattt tttatatatt 120
 tttgagacaa gatctcgctc tgtcaccag gctggagtgc agtggcgtga tcacgggtga 180

ctgcggcctc aacctcttgg gctcgag

207

<210> 337

<211> 167

<212> DNA

<213> Homo sapiens

<400> 337

gaattcggcc aaagaggcct acaggaacat ctactgggga tgactgttag gcagcttgtg 60
atgatgtttt ttaaaaaacc taagtaactt ggggagacag agcatttcaa acccatatag 120
acacctatca tacctgtata tcccctaata catggcgcaa actcgag 167

<210> 338

<211> 153

<212> DNA

<213> Homo sapiens

<400> 338

gaattcggcc aaagaggcct actcaggact ctctcaatga aactgttttt aaatttttct 60
ggtagatgct tgcagagcag agagtgggat ttcttggttt tctatggctt ctttctgtgt 120
gtctctgtat gtgagttcat accgcaactc gag 153

<210> 339

<211> 184

<212> DNA

<213> Homo sapiens

<400> 339

gaattcggcc aaagaggcct agccaaagaa catctgaggt aggtaacacc tgcattgtgaa 60
aaactgtgat atgaatctta tttataaaaa agtcataact aaaacccttc tagaccacaaa 120
agttactgtg tgtttgttaa taactctcat agtactattg gaatgctcaa tcagtcaact 180
cgag 184

<210> 340

<211> 226

<212> DNA

<213> Homo sapiens

<400> 340

gaattcggcc aaagaggcct agtcttctag aagttttata gtttttaggtt tttacattta 60
gtttctttca ttcttgaggt aatttttgca tatggtacag ggtagggatc aaagtctgtt 120
ttttggccta tggatgttaa attgtttttg catgactttt tgcaaagacc atcctttctc 180
cactgaattg tctttgtact tcaaaaatca gttgtccaca ctcgag 226

<210> 341

<211> 231

<212> DNA

<213> Homo sapiens

<400> 341

gaattcggcc aaagaggcct aattttgtat ttgaagatta tttatatcag gtattacttt 60
gtttttcccg ggatacatct gtgttgagtc actttgcatt caacagtgcc tcgccaccaa 120
aatcatacat aagaggaaaa ctaggactgg aagaatatgc tgtcttttac ccaccaaagt 180
gtgttatccc ttttcatgga ttttcaatgt atgttgacac acgagctcga g 231

<210> 342

<211> 152

<212> DNA

<213> Homo sapiens

<400> 342

gaattcggcc aaagaggcct aggaaaagat aaaagaaaac tcttgagatt ttgagtggtt 60
 gttggttggt gttttctccg ttcagtttct tcttttttat aacttggtatt atgaaactaa 120
 actttaaccc aaaattaacc ctgttactcg ag 152

<210> 343

<211> 235

<212> DNA

<213> Homo sapiens

<400> 343

gaattcggcc aaagaggcct acctgcccac aaccaactct aataaatttt ataacattac 60
 tagtacgcac agatatatat gaataactaa aaaagttaa ggaagtgata ttaccctta 120
 ctacatatga cacgtgatga tattgctatt ctattttact cttttttatt tttcagact 180
 cggctcact atgttgccca gactggagtg cagtggctat tcccaggtag tcgag 235

<210> 344

<211> 156

<212> DNA

<213> Homo sapiens

<400> 344

gaattcggcc aaagaggcct attggaaacg ttttggaact agatcgtggt gatggctgca 60
 cgacattgtg agtataccia acacctatgg attttaaact ttattttatt attttattat 120
 ttattttatt attttattat gacaaagagt ctcgag 156

<210> 345

<211> 241

<212> DNA

<213> Homo sapiens

<400> 345

gaattcggcc aaagaggcct agggcacact ctttgctttg cttgcaattc cacactccca 60
 cccatcataa catatttcgg aaaccttatt ccaattggtc cttcaagctc aaatgtcaac 120
 tctacttctc cagaagaagg gtatatatta catattcctt agtgttctag aagttcttca 180
 ttcacacat cctgactgca ctgaaccac catggtatta tcagcaccag gcaatctcga 240
 g 241

<210> 346

<211> 373

<212> DNA

<213> Homo sapiens

<400> 346

gaattcggcc aaagaggcct agtcgggtgt ggtgggtcac ttgtgtaac ccagcagttt 60
 gggaggccga ggcagggtga tcacttgagc tcaggagtcc aaaaccagcc tgagcaacat 120
 ggtaaaaccc tatctctaca aaaagtacaa aaattagcca ggtgtgattg catgcacctg 180
 caatcccagc tactcaggaa gctgagggag gagaatctct tgaaccagc aggtggagac 240
 cagcctgagc cacatagtg aaccccatct ctacaaaaaa tttaaaaatt agctgtgtgc 300
 ggtcacgcgc acctgtagtc ccagatattg gagggcagtg ggggggtggc ctgaggtggg 360
 aggatcactc gag 373

<210> 347

<211> 239

<212> DNA

<213> Homo sapiens

<400> 347

gaattcggcc aaagaggcct acgagcatga gtggggattt gtctctcatt ccctgggctg 60
 gaagtacett cctcctggct ctctgtgagg ccccccctt ttctctgttg tctgttttct 120

accagctcct gcttctccca tggggacttc tctgtcacct ggaatccctc ttcccgcacc 180
ccagctgact ctgagctctg ctaactctgt ccaccctgc caggcccttt cactcagag 239

<210> 348
<211> 192
<212> DNA
<213> Homo sapiens

<400> 348
gaattcggcc aaagaggcct acgagagggg gggagaaaagg aaattaaaaa ctgtgaacag 60
aataacgata gttacttaaa aaatatgatg gctctacca tgtagtaca ttttttgatt 120
caggtaacgg ttagtagaat gaaacattcc atgaatgaca tgtagttat taagcatgtt 180
agaaacctcg ag 192

<210> 349
<211> 279
<212> DNA
<213> Homo sapiens

<400> 349
gaattcggcc aaagaggcct aggctagtgg cggctctgcc cttcttttag tgggggatgt 60
attagcttca aaatcttcaa cagtgtcttt ccttctctggc gactcttctc cagggtgtc 120
catgatact ccactccctc catctaggat gtgccttaaa gctgggtcct cagggaaca 180
gacggtggtt ccactctcac tgctgcttag gtctaaatct tctaagtaaa ggatcttggg 240
ctgatgcatg cttttgatga atgtttctc cctctcgag 279

<210> 350
<211> 245
<212> DNA
<213> Homo sapiens

<400> 350
gaattcggcc aaagaggcct acaacatgta aaattagagg agaaatttag gtttagatta 60
attgcatgag aaataaaatt agaggacaaa tgtagtatac ttattttggt aatataaaat 120
taattaaaat tatattacta tcaacatctt atactatact tttttttat ttcatgtga 180
gcctctcaac aacctgtaag gcaggcaggg aagggtgaac tagtattact gcacatcccc 240
tcgag 245

<210> 351
<211> 263
<212> DNA
<213> Homo sapiens

<400> 351
gaattcggcc aaagaggcct agtacgttaa ggtgggtggc cgctggccac taaattgttg 60
tagcaccact tgggaaaaga aaagatggat tttctgtcct taagcctctg gaaactacct 120
ttagccttta gagaattgtg agagaaacat gtttgaatat gaacttgtga gttcctatgg 180
agaaaaaagg tcaatgtaaa atctagcacc aggatataat tattagagat atgaattgta 240
cttctctaca ggagaacctc gag 263

<210> 352
<211> 251
<212> DNA
<213> Homo sapiens

<400> 352
gaattcggcc aaagaggcct accggaagtg tggcttcggt tacagttcgg cacgtaggac 60
ggagggtagt gcgtctagag acacatactt ccaacggatt tgacgatggt gttcgtctt 120
gaatggaaat gtagtcttag gccagtctta ggtttttgaa caggatagta gctatccgga 180
gtcgattgag ggccagagca ggcactgggg ctcggatcct gggcaaagtt tcccacgttg 240

aggggtctcga g

251

<210> 353

<211> 302

<212> DNA

<213> Homo sapiens

<400> 353

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gaattcggcc aaagaggcct actctgtttc aggaagaggt gtcactcttt gcaaaggcaa 60
actcctcttt atctggttac tcttctccca actcttaa atgtttcctg ccacgttcta 120
tttttagagct tttctctgtt ggagcagcag ccactttttt tgaggcccat ttaaacctct 180
ctccagtctg tttaggggac ttcagtagtt ctttgttgag catgcacccc acatgggtgcc 240
cactgccagg cactggggat gcagagacaa agagtctcca ctcacccacc acagcactcg 300
ag

```

302

<210> 354

<211> 207

<212> DNA

<213> Homo sapiens

<400> 354

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gaattcggcc aaagaggcct actttttcta attgatttgt ctttttctat atagtctaga 60
taccaatcct ttgttatgag agctgcaaaa cctctcagac tgtttttctt tttttctttg 120
tttatgcagt cttgctattt gtcatttttt tgctgtatgt ttttcttgtt taggaaatca 180
tcctcatccc aagttcatat actcgag

```

207

<210> 355

<211> 175

<212> DNA

<213> Homo sapiens

<400> 355

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gaattcggcc aaagaggcct acagtttttt tatgtttatt cctaagtatt tcttacttta 60
agatctctag caaatggaag tgttttttta ttttcgttta aattttttat tgtttatgga 120
aattcaatta atttttggtg ctgctattgc attgtgcaaa tccactgaac tcgag

```

175

<210> 356

<211> 326

<212> DNA

<213> Homo sapiens

<400> 356

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gaattcggcc aaagaggcct actttaactg ggcaggcgcg tgctctgata aaacatggga 60
attttaatac taaaggaaga aaggagagat gaatatctg ggacaacaag cagactctgc 120
cacaggcaat gaccacccta accctgggga agatgcagat gccttcccca tcatctaatt 180
aattcaccat ttattgagca tggactttgt gccagatatt gtgcacaaca cacaggttct 240
tccttttagc ctctctcta cagtctagaa ggggcagaca gactgatgaa caccagggt 300
gtcaggggt cctggggctg ctcgag

```

326

<210> 357

<211> 462

<212> DNA

<213> Homo sapiens

<400> 357

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gaattcggcc aaagaggcct aataaaata atgaagctcc ttttttact ttgctctgtg 60
actggtttta aggttaagtt gtatgttggt tggttagatt tgccaggctt ctccaacag 120
agtagaagtg atttggcctc ataacttcac agtgggttac cactttgttc tatgttctgg 180
ttttgtaaag gatagtactg gaatttgcgt ctgaagacca atattggtgt aactcctgtc 240
agtatattgg taaatgtag cagaggcagg agtttggatg ttggatggg attcccttag 300

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gattctacag ccaataaaga tcttatttcc tatgcatgtc ccaggaatca gtaatcctct 360
 tttactctgt tgggatgagt ctttttttgt ttctgttcag agtgggttact aacttcacct 420
 tctttectca aaccgtcgat tgaattctag acctgcctcg ag 462

<210> 358

<211> 220

<212> DNA

<213> Homo sapiens

<400> 358

gaattcggcc aaagaggcct agtttccttt ttagatctgc tactctgttt ggataatgtc 60
 ttattcetta tgttttggtc ccattcttca tggttttatt tttatttata ttttaggttt 120
 tgagacaggg tcttgctctg ttcaccaggc tggattgcag tgtccaccgt cttggctccc 180
 tgcaacctec acctcttggg ctgaagcgat cccctcggag 220

<210> 359

<211> 221

<212> DNA

<213> Homo sapiens

<400> 359

gaattcggcc aaagaggcct agttggggga caaattgaaa ctcttgcttc aaaagaaaaa 60
 aaaaaagaat gagaccttct catatactgc tggtggaat atatggtaca gatatttga 120
 ataacaattt gttactacct aataatgtca aaatatgtta cacgaccag caatccact 180
 cctacctaca tgccttaaa actctcacac atggactcga g 221

<210> 360

<211> 223

<212> DNA

<213> Homo sapiens

<400> 360

gaattcggcc aaagaggcct acttttatca aagtcaaaat aatttatttg atatatagag 60
 agccacactc cagctaataa attattgttg ttcattttac agcatctcag atataaaaaa 120
 tttggttgca tctacatgt ctttttttcc tatctgttgc ctctgtcccc ttcctctgat 180
 tctgttgttc cccctactt ttatttttagg ttcagaactc gag 223

<210> 361

<211> 226

<212> DNA

<213> Homo sapiens

<400> 361

gaattcggcc aaagaggcct aatttttttt tagttcttcc tgttttccag gtaccgttct 60
 cagtgattgg tacttagtag ctcatctcat tttcatgata cctccataag gaaggatat 120
 tattgtttac attttacagg tgcagaaact gagcacaggt gcacaacatt cccaagctca 180
 cacagctaata aagtagagga acatgaagta caaggcctgg ctcgag 226

<210> 362

<211> 457

<212> DNA

<213> Homo sapiens

<400> 362

gaattcggcc aaagaggcct aaatttaata tttgttacaa cattcatgca tatgatcagt 60
 ggattttttt gttgttgttg aggagggtaa attttaaaaa agaattggta tataaaacag 120
 atgcattaaa acagtgtgtc ccaacctttt tggcactagg aaccagtttt gtggaagaca 180
 gttttttcat ggacctgggg tgggatgagg tgggtggatg ttttaggatg attcaactgc 240
 attacattta ttgtgcactt tttttctgtt attattacat tctaataat aatgaaataa 300
 ttactactgt cgccataatg tagaatcact ggggaaccctg agcttggttt tctgaaacta 360

catgggtccca tctggagggt atgggagata gtgacagatc atcaggcatt agattctcat 420
aagaaacagg cagcctagat ccctcccggc actcgag 457

<210> 363

<211> 356

<212> DNA

<213> Homo sapiens

<400> 363

gaattcggcc aaagaggcct actgtcttca caaaaataaa caaacaaaca aataaaaataa 60
ataatacctt ttattattta cctctgatct attcctatta cagttccgca ttcagtgtaa 120
tttcccctag gggttaactgc aatttcattt ttttaataata cccaacaaag agctgtagct 180
ccctcctgtc tgcagatcag tgtttatagg acagaatata atattctact atgctaactt 240
taccttttac ccttttctta gcacgtgcac acacatgtgt gcacatactg ttagagtecc 300
tatttctctc tctctacaca ctgccagtct ctctcccttg tcccgcgcag ctcgag 356

<210> 364

<211> 213

<212> DNA

<213> Homo sapiens

<400> 364

gctaaaccgt cgattgaatt ctagacctgc caccctctaa atatcaagct cattcacttt 60
ttaaaaaaat tcctttcaga ctctatatca caaatgtatg gttttcttgt tttgtttttt 120
gagacagtcg cactctcgcc caggctggag gcagtggcac aaactcagct caccgcaacc 180
tccacttccc gatttcaagc gattcccttc gag 213

<210> 365

<211> 280

<212> DNA

<213> Homo sapiens

<400> 365

ggtcattttt aaaattgggg acccccagat gtcagtattt gtagatattg tctcagggaa 60
ctataagctg ggtgtaggca tttgggaact ggatgaagta atattttgct atgcagactt 120
tactttaatc catatttgta tttgttttat tttactttat ttttttgaga cagagtcttc 180
caggctgggg tgcagtggta gaatcacagc tctactacagc cttgacctgt ccggcacgag 240
tgatcctttc acctcggcct cccgagcagc gggactcgag 280

<210> 366

<211> 174

<212> DNA

<213> Homo sapiens

<400> 366

gctcagactc ttggaagggg ctatactaga cacacaaaga cagccccaaag aaggacgggtg 60
gagtagtgct ctgcgtaaaa gacagtagat atgcaacgcc tcttgetect gccctttctc 120
ctgctgggaa cagttttctg tcttcatctg gagaatgatg ccccccttct cgag 174

<210> 367

<211> 532

<212> DNA

<213> Homo sapiens

<400> 367

catggagttt gggctgagct gggttttcct cattgctctt ttaagagggtg tccagtgtca 60
agtacaactg gtggagtctg ggggcggcgt ggtccaacct ggggggtccc tgagactctc 120
atgtgcaaca tctggattca cttcagtgta tttcggcatg cactgggtcc gccaggcgc 180
aggcagggga ctggagtggc tgtcttttat tcgctttgat tcaagtaatg aaaactatgc 240
agactccgtg cagggcgcgt ttgcctctc cagagacaat ttcaaggaca cactgtatct 300

acaaatgaac agcctgactg ctgacgacac ggctgtctat tactgtgcga ctgggaagat 360
 agcagccgcg ggtaccccat ttgactattg gggccgggga accctggcca ccgtctcttc 420
 agcctccacc aaggggcccat cggctcttccc cctggcacc cctccaaga gcacctctgg 480
 gggcacagcg gccctgggct gcctgggtaa ggactacttc cccgaactcg ag 532

<210> 368

<211> 229

<212> DNA

<213> Homo sapiens

<400> 368

ggccctgatcg tgtctgtaga tgaaccatc aagaaccccc gctcgactgt ggatgctccc 60
 acagcagcag gccggggccg tggctgtggc cggcccact gagaggcacc ccacccatca 120
 catggctggc tggctgctgg gtgcacttac cctccttggc ttggttactt cattttacaa 180
 ggaaggggta gtaattggcc cactctcttc ttaccggagg ccactcgag 229

<210> 369

<211> 350

<212> DNA

<213> Homo sapiens

<400> 369

gagcaggagt acagttctga agataacttc ctttaaaaaa ggaaattcat aaaatatcat 60
 gcatcttctt tttttgacac taatggaaca atttaagtta atttcagagg gaagcagagc 120
 ccctggaaag gctgggtgta taagggaagg ttaccagct ttccgtgtag gcggtgtgtg 180
 ggagcagaga gtggcattct ctgcatactc ttggggagaa gagtgggtga gacaggctgc 240
 tcagggctgg ggcagagccc aggggaaggg gatggaaggg gaagaacagc ccttcaagag 300
 tcctgcagaa attggtggaa gttatttaa cagaagtgtt cgggctcgag 350

<210> 370

<211> 155

<212> DNA

<213> Homo sapiens

<400> 370

ggacatagtc ccagcctggg ttgagagagc aaaacccctgt ctcaaaaaca aaacaaaact 60
 cttcttaaat atcaatttta tttgtttaga cagcgaggca ggtatttttt aacacatatg 120
 ccactgctat gttttatatt cgtaccatac tcgag 155

<210> 371

<211> 228

<212> DNA

<213> Homo sapiens

<400> 371

ggtttttctac ctaaaagggg aaaattttct ataaaaagat tccacgtccc tctttagaaa 60
 aataaagcta ctttaaaaag cccgtttatt tttgaaaccc caacaggctt ctcaaaaactg 120
 ctgtcattcc taaatacga gttcttaaaa atccacatgt cctcctcagc cagaggccta 180
 tggacagcac aaaatacagg ggaatgtcgt ggtggcggct gcctcgag 228

<210> 372

<211> 268

<212> DNA

<213> Homo sapiens

<400> 372

ggacctctcg tgcaagaaca tgaacatct gtggttcttc cttctcctgg tggcagctcc 60
 cagatgggtc ctgtcccagg tgcagctgca ggagtcgggc ccgggactgg tgaagccttc 120
 ggagacctcg accctcact gcactgtctc tgggtattcc atcagtaatt cttattggag 180
 ctggatcagg ctgccccccg ggaagggaact ggaatacatt ggatatgtct ttacaacgg 240

ggacaccaat tccaacccct ccctcgag

268

<210> 373

<211> 480

<212> DNA

<213> Mus musculus

<400> 373

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gaattcggcc aaagaggcct acctgggttg tgaattatgg cctggatttc acttatactc 60
tctctctctg ctctcagctc aggggccatt tcccaggctg ttgtgactca ggaatctgca 120
ctcaccacat cacctggtga aacagtcaca ctcaactgtc gctcaagtac tggggctggt 180
acaactagta actatgccaa ctgggtccaa gaaaaaccag atcatttatt cactggtcta 240
ataggtggta ccaacaaccg agctccagggt gtctctgcca gattctcagg ctccctgatt 300
ggagacaagg ctgccctcac catcacaggg gcacagactg aggatgaggc aatataattc 360
tgtgctctat ggtacagcaa cctttgggtg ttcgggtggag gaaccaaact gactgtccta 420
ggccagccca agtcttcgcc atcagtcacc ctgtttccac ctctctctga agaggtcgag 480

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<210> 374

<211> 271

<212> DNA

<213> Mus musculus

<400> 374

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gaattcggcc aaagaggcct actcaactgt tgetttaaaa tottaatat tccatcactt 60
ataatttctg acgtagatga gagttctgac caccaccttt ttattactgc ttgaagccag 120
tttaaaccaa caattacata ttcttcaaat ctgctttgaa gtaaagactt taccagagga 180
agtaagtcta cacagcagcc aagttagata tactgctttt ctctctgtaa actattggtt 240
agaacaggaa ggcaatctac aacaactcga g

```

<210> 375

<211> 423

<212> DNA

<213> Mus musculus

<400> 375

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gaattcggcc aaagaggcct aaggatgttt gctagcttcc ccaccaccaa gacctacttc 60
cctcactttg atgtaagcca cggctctgcc cagggtcaagg gtcacggcaa gaaggctgcc 120
gatgctcttg ccaatgctgc aggccacctc gatgacctgc ccggtgccct gtctgctctg 180
agcgacctgc atgccacaa gctgcgtgtg gatcccgta acttcaagct cctgagccac 240
tgcttctctg tgaccttggc tagccaccac cctgccgatt tcacccccgc ggtgcatgcc 300
tctctggaca aattccttgc ctctgtgagc accgtgctga cctccaagta ccgttaagct 360
gccttctgcg gggcttgcc tctggccatg cccttcttct ctcccttgca ccagtacctc 420
gag

```

<210> 376

<211> 333

<212> DNA

<213> Mus musculus

<400> 376

```

gaattcggcc aaagaggcct actgtctcgg tgccagtacc tctgggatgg cctcacaaaa 60
ccgcgaccca gctgctgcca gcgttgccgc ggttcgaaaa ggagccgagc cctgcggggg 120
cgccgcccga ggcctctgtg gcaagcggct acagcaggaa ctgatgatcc tcatgacatc 180
tggtgacaaa ggaatctccg ccttccctga gtcagacaac ctgttcaagt ggggtggggc 240
catccacgga gcagccgga ccgtatatga agacctgagg taaaaactct ccctagagtt 300
ccccagcggc taccettaca acgcggactc gag

```

<210> 377

<211> 271

<212> DNA

<213> Mus musculus

<400> 377

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gaattcggcc aaagaggcct actcaactgt tgccttataaa tcttaatat tccatcactt 60
ataattcttg acgtagatga gagttctgac caccaccttt ttattactgc ttgaagccag 120
tttaaaccaa caattacata ttcttcaaat ctgctttgaa gtaaagactt taccagagga 180
agtaagtcta cacagcagcc aagtggagata tactgctttt ctctctgtaa actattgggt 240
agaacaggaa ggcaatctac aacaactcga g 271
```

<210> 378

<211> 377

<212> DNA

<213> Mus musculus

<400> 378

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gaattcggcc aaagaggcct agcggactgg agctgaaagt gttgattggg aaacttgggt 60
gattcttctg tttatttaca atcctcttga cccaggcagg acacatgcag gccaaaaaac 120
gctatttcat cctgctctca gctggctctt gtctcgccct tttgttttat ttggaggcgg 180
tgcagtttag ggcacgcagg agccacagcc ggagagaaga gcacagtggg cggaatggct 240
tgcaccagcc cagtcgggat catttctggc cccgcttccc ggacgctctg cgccctttct 300
ttccttggga tcaattggaa aacgaggatt ccagcgtgca catttcccc cggcagaagc 360
gagacgcgga tctcgag 377
```

<210> 379

<211> 390

<212> DNA

<213> Mus musculus

<400> 379

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gaattcggcc aaagaggcct atggaatttc ctcagcttta tcttgtcttg ctttgaagtt 60
ttgetcaatg ttcctccctt ccgaccactt ccacttaaat aaagtcttta agtagctgaa 120
ggattaacag tctggtggga ggcaagccat tgaactgaac cagcaggaaa gtatatatttc 180
ttcttttctt ttcctgcaaa gttttcgggtg gcattttagt aagctggtgt gaaaggctag 240
gaggcattgt tttctattat tcctcgggtg agccttttcc cagagcatat gtctccggca 300
ggcagtggtg gtctcttgca agcatcagaa ccagtctcca gggcctcccc acgccgatcc 360
atagtactgt acagaccac cggactcgag 390
```

<210> 380

<211> 435

<212> DNA

<213> Mus musculus

<400> 380

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gaattcggcc aaagaggcct acagggacca cacagaaaaa ggcctcgcta aagcaacaaa 60
cctgatcatt ttcaagaacc ataggactga ggtgaagcca tgaagtgtt gctgatctcc 120
ctagccctat ggctgggcac agtgggcaca cgtgggacag agcccgaact cagcagagacc 180
cagcgcagga gcctacaggt ggctctggag gagttccaca aacacccacc tgtgcagttg 240
gccttccaag agatcgggtg ggacagagct gaagaagtgc tcttctcagc tggcaccttt 300
gtgaggttgg aatttaagct ccagcagacc aactgcccc agaaggactg gaaaaagccg 360
gagtgacaaa tcaaaccaaa cgggagaagg cggaaatgcc tggcctgcat taaaatggac 420
cccaaggggc tcgag 435
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<210> 381

<211> 321

<212> DNA

<213> Mus musculus

<400> 381

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gaattcggcc aaagaggcct agtgggatgg tgctgtcatt tttcaggacg cctgatttga 60
tgctgcacag aaactcgtcc gagagtgaag agaggctgaa gtaatagctc aagtagatac 120
```

atgccaacag tataaccaca aatgtcacca gccggcagct aatgtatttc atgattaaat 180
 gactagagtt cttttttgtc ttcaagtact gctccacgat tgggtacttg aagtggcttt 240
 cagatatctc ccacagactc tgccccacat tctcagtcac tcttgggggt ccaggtcctg 300
 ctcttaggtc caaatctcga g 321

<210> 382

<211> 223

<212> DNA

<213> Homo sapiens

<400> 382

gaattcggcc aaagaggcct acgactacag acacagacgg tgccgccgag acttgtgtct 60
 cagtacagtg tcagaagcaa attaaagaac ttcgagatca atgtttatct cttcagttat 120
 tacatctggt ccagcttgg ccatgtacaa catgtctgatt cttttcaacg ttttattttc 180
 tttatttagc tttgttgcca aagcttcagc actttctctc gag 223

<210> 383

<211> 258

<212> DNA

<213> Homo sapiens

<400> 383

gaattcggcc aaagaggcct acagaaacat ctcaaggtag ctgggtccgcc cccacttccc 60
 catctacctc ttgtctctcc cccaacacca ccaccacctt ggctccctc cctcatgacc 120
 gcctggatcc tctgcctgt cagcctgtca gcgttctcca tcaactggcat atggactgtg 180
 tatgccatgg ctgtgatgaa ccaccatgta tgccctgtgg agaaatgggc ctacaacgag 240
 tccaaggctc tccctata 258

<210> 384

<211> 207

<212> DNA

<213> Homo sapiens

<400> 384

gaattcgcgg ccgcgtcgac agtgaaattc ggtgttatgt taatggacaa ctggtatctt 60
 atggtgatat ggcttggcat gttaacacaa atgatagcta tgacaagtgc tttcttggat 120
 catcagaaac tgctgatgca aatagggtat tctgtgtgca acttgggtgcc gtgtatgtgt 180
 tcagtgaagc acccaaccca gctcgag 207

<210> 385

<211> 193

<212> DNA

<213> Homo sapiens

<400> 385

gaattcgcgg ccgcgtcgac acaagatgtg gacagctctt gtgctcattt ggattttctc 60
 cttgtcctta tctgaaagcc atgcggcatc caacgatcca cgcaactttg tccctaacaa 120
 aatgtggaag ggattagtca agagggaatgc atctgtggaa acagttgata ataaaacgtc 180
 tgaggatctc gag 193

<210> 386

<211> 212

<212> DNA

<213> Homo sapiens

<400> 386

gaattcgcgg ccgcgtcgac catagaataa ttgtgccctt agtcattcac tggccaaca 60
 gtgtcctttc ttattttctt aagatattta tataacagat gcataattac agatatattc 120
 gtaacagatg cataataatc ctaatatcca tattgggtac tctttcctcc tttccaaatt 180
 tgttttagctt tccaccaccc cccagctcg ag 212

<210> 387
<211> 227
<212> DNA
<213> Homo sapiens

<400> 387
gaattcgcg cgcgctcgac gtgaaagta gaagggcagg gcagagtatg tactgttttg 60
tggtgtgtg ttattttttg agactaagtc ttgctctgtc acccaggctg gagcggggtg 120
gtgtgatctc ggctcactgc aacctctgcc tcccagggtc aagcaattct cctgcctcag 180
tctcctcct agtagctggg attacaaacg cccaccaccc actcgag 227

<210> 388
<211> 163
<212> DNA
<213> Homo sapiens

<400> 388
gaattcgcg cgcgctcgac cacttattca gggatattgg agaagatatt cactagaca 60
aagatttctg aaattgaaat attattcaat catcctgcaa tctaggataa gaatgataat 120
tgctgttaca tcttataaac gatattcttg ggctacgctc gag 163

<210> 389
<211> 223
<212> DNA
<213> Homo sapiens

<400> 389
gaattcgcg cgcgctcgac ccaccacctt cctgtccctt gtgactgcct cgcaactggg 60
tctgttctgt gagatgtcgc caccctgttt gccatctggg aggatctcac tccttcaatt 120
taatctgtc tcttcctgta tttttttagt ttctatgtat ttactttta ggacattcct 180
tggactttgt tctacctctt taattgatga agaaaacctc gag 223

<210> 390
<211> 185
<212> DNA
<213> Homo sapiens

<400> 390
gaattcgcg cgcgctcgac ctccatctcc aaaaaagaaa aaaaatgtat tctcttagca 60
aatttccagt ttataatata gtattattaa ttatagtcct tatgggtgtac attagatctt 120
tagacttact cttcttatat atatgtaact ttacatcctt ggacctacat ctccccctgcc 180
tcgag 185

<210> 391
<211> 221
<212> DNA
<213> Homo sapiens

<400> 391
gaattcgcg cgcgctcgac gagaaagtca taattcatta gatatgtttt aattattgaa 60
tttgttagac tctaaccttg aagtactaac taagcttgct ataaatatac tgtttctcat 120
ctttgtctgc taccttggtg ttaatggaga gtcactttgt agaaaaaat atactgtttc 180
tcatctttgc tgtctacctt gttgttaatg gagagctcga g 221

<210> 392
<211> 219
<212> DNA
<213> Homo sapiens

<400> 392

gaattcgcg cgcgctcgac tggcttgca atttctgctt gaaagaagct agtgttttgg 60
 tcaagattca gctgaatctg taggtaaatt tgagttgtat tgccatctta ataatttta 120
 atcttccaat tcatgagcat ggaatgtttt ttcctttatt taggaattct ttattttttt 180
 ccaactgtgt ttgtagttt ttgtatgcag gttctcgag 219

<210> 393

<211> 155

<212> DNA

<213> Homo sapiens

<400> 393

gaattcgcg cgcgctcgac ggggtaagaa gctgccggct gaactaatac tgggttatta 60
 tacttgtttc cttcagaact ctgtgggtcat tggteccatct tctgacattg aactctgcta 120
 tgaagtccaa ggtaacctc atcctcctgc tcgag 155

<210> 394

<211> 157

<212> DNA

<213> Homo sapiens

<400> 394

gaattcgcg cgcgctcgac caaaatttga atcctaagag cttgttacat ataaatatta 60
 acagtttacc ctttatgata tgagctacag atattgtcct cagttgtgtt ttcttttgac 120
 tttgctaattg ttttattctt gccatgcaga gtcgag 157

<210> 395

<211> 231

<212> DNA

<213> Homo sapiens

<400> 395

gttaaaacgt cgaatgtgcc atcacattct atcacatatt tttgacgtgg caatttgcat 60
 tttggcttaa gtaataaaca tttttttaaa cccactatct tgagcggtca gtggtctgta 120
 acagtggtgt ataccataag aactgggtatg aagtgggttaa ctactagttt aataatagtt 180
 gaagcctggg cgtgggtggct cacgcctgta atcccagcgg ggaggctcga g 231

<210> 396

<211> 183

<212> DNA

<213> Homo sapiens

<400> 396

gaattcgcg cgcgctcgac ccaattcatt ttaagaaag gaagcaacag atagatgttg 60
 ctctttcacc tgggtgtctg ggctcaagct ttcccgccca gcctcacttc ctttgccctt 120
 cctcctgect ttctcaactg tccaaggag ggggcctcat tgtgtctccc gtgcacgctc 180
 gag 183

<210> 397

<211> 213

<212> DNA

<213> Homo sapiens

<400> 397

gaattcgcg cgcgctcgac gctgccactc ctaaaaatat cagagtgtt ttttttttcc 60
 ttaatcacat aactgtaacc ttctgtctac tcagggcata ctaacttta gatgaaacct 120
 aaagaatgga tttttcattt ttactacat ttgactgtaa atacagacag cttgataata 180
 ataacatatg ctgtggaatt cccaatctc gag 213

<210> 398

<211> 153

<212> DNA

<213> Homo sapiens

<400> 398

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gaattcgcgg ccgcgtcgac cctgtttttc tttctctcta atcaaatgag aagatgttgc 60
ttggtttatt tttttttctt tttcttagca aagaagtact ttgagtatgt cctagaacaa 120
tatttttcaa gatgctctcc ctggtcactc gag 153
```

<210> 399

<211> 288

<212> DNA

<213> Homo sapiens

<400> 399

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gaattcgcgg ccgcgtcgac tctaaaagca agattgatgt attttgtaat tctacagtgc 60
ttacttcagt gttgatgaca gtaataagaa tagtatctat agaataacta gttttaagt 120
tttttactaa aaattcattc tcaatttaat aactagagag ttacagtatt ttttttcagc 180
atgtatttta gtttgtttta tcaccttaat ctccctaata gtcctgcaaa tgtagtactt 240
gttctaacca tactgggatc ccacattata ttagcatatg ggctcgag 288
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<210> 400

<211> 203

<212> DNA

<213> Homo sapiens

<400> 400

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gaattcgcgg ccgcgtcgac acattgcatt aatggtagta caaccttaag tgagtgaag 60
gaattcgaag ttttagaag taggaaaaaa ttaccacaa cccttaggat attgatcctt 120
ctaaaatatt taatttttta aacacttttc attttgtttt ccattctcatt tcaatgcata 180
ttctttttaa cagaatactc gag 203
```

<210> 401

<211> 193

<212> DNA

<213> Homo sapiens

<400> 401

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gaattcgcgg ccgcgtcgac cttgctgcat acagatctgt tgaaagtctc cgtgcatgtt 60
aaaccatcca ctctgtaggc aagtgttgt aggtgtcttc actttccaga tgaagtcact 120
gagaagacaa gaggttcaga cacttgccca acctctagta agtgacggag ctgagatcca 180
aacgcgtctc gag 193
```

<210> 402

<211> 284

<212> DNA

<213> Homo sapiens

<400> 402

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gaattcgcgg ccgcgtcgac gattttattta atcctcctaa tagttattaa taataactat 60
tatcccccat tttacaaaag aggaaactga ggcacagaga agttgagtga cttgcacaag 120
gtcactactaa taaatagcag agctgggatt tgaaccacaga ccacggtcac caaactgtaa 180
agggctcaat ggtcaatatt tttggctttg tagtccatgc agtctctgtc acagtgactc 240
aaccttgctg ttggagcaca aaagcagaca taggccgtct cgag 284
```

<210> 403

<211> 168

<212> DNA

<213> Homo sapiens

<400> 403

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gaattcgcgg ccgcgtcgac taaaaaagta atttagattt aaagttcttt gatgtatttg 60
```

atcttctaaa tctttatggt tatgatttgg aataaaatgt gcctaatacct gtgttacatt 120
ctgttcttaa atctgaatgc cttctcattt aattctgagg gactcgag 168

<210> 404
<211> 189
<212> DNA
<213> Homo sapiens

<400> 404
gaattcgcgg ccgcgtcgac ataaattatg gtcctaagta tctttccatg acaaaaaaga 60
accagtgaa tagaaaaattt tattttcatt attatgatag cttattttct atatgtagat 120
atgtatttct tttttcttct ttttttttgg agatggagtt ttgctctgtc gcacaggctg 180
gatctcgag 189

<210> 405
<211> 174
<212> DNA
<213> Homo sapiens

<400> 405
gaattcgcgg ccgcgtcgac gaatccatct ggtcctgggc ctggttctac attttgtagc 60
ttgtgagtat agaggtgttc ataataaggtt ctgggaattt tttgtatttc tgtgaggtca 120
gtggtaatgt cctctttgtc atttctgatt ttgtttattt ggcgtccct cgag 174

<210> 406
<211> 234
<212> DNA
<213> Homo sapiens

<400> 406
gaattcgcgg ccgcgtcgac caaagtgtctg agattatagg tgtgattcac tagctccagc 60
ctaaaatccc taaattctaa aatcccaaaa tcacaattct gagagaccaa aatttcaaaa 120
atataattgt ggaataaagt tttaaaaata tttaaaatac atttgttaca attttaaaag 180
aagactttag agacatatata atacatgact gaacacatta taggtccact cgag 234

<210> 407
<211> 196
<212> DNA
<213> Homo sapiens

<400> 407
gaattcgcgg ccgcgtcgac agtagctgag atagagtggg gagcaagatc attgcaagat 60
ctcactactt agcactcaag tagaagaaaa aaaaaaagac cattgaaaga gtgaagtcaa 120
gaaaatgaga ggcagggtga ggggtggatta ccaagaagcg tatgaaaatc cccaagaatt 180
aaaacaggag ctcgag 196

<210> 408
<211> 232
<212> DNA
<213> Homo sapiens

<400> 408
gaattcgcgg ccgcgtcgac agatcacacc accacactcc aacctgggca acgtagaaag 60
gccccgtcta tatttttaatt taatttaatta attaaagttt ttttttaaag cactcatcat 120
aaaagaatat agcaaaatac caaaaaagga aaaataagcc aataaccaag tcaaaatgag 180
gtgtggagtt ctgactgtgt gtctttgggg cttcttccca tcaccactcg ag 232

<210> 409
<211> 232
<212> DNA

<213> Homo sapiens

<400> 409

gaattcgcgg ccgcgtcgac cacacacgca aatacagatt ttctgtccaa agcccaggca 60
gcattttctag atgtggccct ttgggagtaa catgctttcc cagtccttcc acctccatat 120
acttttcttc accctccttg acagccagag cactctagag cagatatgca aaaagtcagc 180
tcaaatagac caagtagtgc cgaactgtcc caaagcacac gcacctctcg ag 232

<210> 410

<211> 159

<212> DNA

<213> Homo sapiens

<400> 410

gaattcgcgg ccgcgtcgac cctctgctta ctgtgacagt cgatgatgaa tcttgcggtg 60
ccattttctg ctgtgggtaa ctgcgtgcag tgtcttgctt tgctttctct tcttactgtc 120
ccacagcttg gtttcatgtt acaaacagaa aagctcgag 159

<210> 411

<211> 230

<212> DNA

<213> Homo sapiens

<400> 411

gaattcgcgg ccgcgtcgac cccgccttgg cctcccaaag tagcagtaca ttatttaaag 60
aaaactagaa agaagtagtg aggcaaaaag cctctccagt cttacagaca cacacaataa 120
tgatttattt cctttcaact tttttttgtc ttcttgtaag tctttgcctg agcttgaagg 180
tcgggagtag ttacacaat catcattatg ttgcatatgc tggctctgag 230

<210> 412

<211> 181

<212> DNA

<213> Homo sapiens

<400> 412

gaattcgcgg ccgcgtcgac gtttgacgta ttggagtttt tggttattct attcctgttt 60
gtggtgaact ctttagttca ctataccttc gtctggctgg aggagtatga taatccaagt 120
gcctgctttt attttcttgt ctgcatgtat tttatatttc tgttttccca tcacactcga 180
g 181

<210> 413

<211> 166

<212> DNA

<213> Homo sapiens

<400> 413

gaattcgcgg ccgcgtcgac agacctgcct ctactcagtt tggattattc acagtccttg 60
catatgtctt tagtttttcc taataccttt gttcatgctg ttctttcctt ctcctgagtt 120
gattaccgcg ctcttcaac tgtactacat tcatacatct ctcgag 166

<210> 414

<211> 116

<212> DNA

<213> Homo sapiens

<400> 414

gaattcgcgg ccgcgtcgac caaatcatga agcaattttt aaatttttta ttttctcttt 60
attttatcat tttttccttt cttttttatt ttttaattt tgagcatacc ctcgag 116

<210> 415

<211> 301
 <212> DNA
 <213> Homo sapiens

<400> 415
 gaattcgcg cgcgctcgac ccttcttcat gaattgcatt ttccactct taagcatccc 60
 tttattttct tcccaggat cacagaagag aaagatgaag agcaaatatt ttctctttac 120
 tttgtgtatt ttctacaaac ttggggcctg ccttggtggc tgcaaaagt tccttttttt 180
 agagcagaaa gagttgcagg aaaacatgat gtggtgttct atgcaacata gtggaaatgc 240
 agtttttagt catcaggctg cacttctct cagtccgcag cccagagct caatactcga 300
 g 301

<210> 416
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 416
 gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt ctagactctg cccagtgtag 60
 atatctttca caaataagac gatataaaga tattttcaga taggtgtata acattcgtct 120
 aagtcaagat cgacaaacac tgcctgttaa aataagacag aagctggaaa cggaagataa 180
 acctgagaga gaaagcatga ctctggaatc cactgccat cagagctctc tccagaccag 240
 tgctccttcc ctctctcacc ttcttgaatg cctcggcctg gcacctgaac tccccatcgc 300
 tgctgccacc ttccccacc cacttcttct tctttcatgt gtgtacttcc tcgag 355

<210> 417
 <211> 177
 <212> DNA
 <213> Homo sapiens

<400> 417
 gaattcgcg cgcgctcgac tataattata gctaatagaa ataaaaataa ggaataacca 60
 gaaagaaata taaaggaatc ataaagtga gcagataggt gctaagtga tcctgcttac 120
 aatatttgag ataattctta aagtcattat accagtcttg atatgagggc cctcgag 177

<210> 418
 <211> 151
 <212> DNA
 <213> Homo sapiens

<400> 418
 gaattcgcg cgcgctcgac taggatattt tgacataagt gtaggacact tatgaatttt 60
 gccttattat ttgtcaatct tataaaaaata tatgttaaga aacttatcta tatctacac 120
 tttaaaattt atgatgaggg cagggtctga g 151

<210> 419
 <211> 260
 <212> DNA
 <213> Homo sapiens

<400> 419
 gaattcgcg cgcgctcgac atacagggca tgatgaggtc atcacagatc caggttcttt 60
 ctgtcttctg ctctgcattc gttagcctgtg gctttgtcat tccctcatct ggaaatggcg 120
 gctgcagccc caggcacaat ggcccgttga ggaagaaggg ggacgatgtg cagtgtcagg 180
 ttattttatc aggaaagtgc aaagcttctc agaaatcttc tgttgaatt ctacctgggt 240
 gtcataggcc aggaactcgag 260

<210> 420
 <211> 174
 <212> DNA

<213> Homo sapiens

<400> 420

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gaattcgcgg cgcgctcgac ttcttttagca atttgagaga agttttacta caagtgcgat 60
tttagttttc ttttaaaaag tcagttttta agttgtataa attaaaaata tttttaaat 120
tttaaacaga tgctccccct tcaaccact ctagttatta ccactctact cgag 174
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<210> 421

<211> 190

<212> DNA

<213> Homo sapiens

<400> 421

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acaagccaaa attatctgct ggtgactgga actcacagac agaggcttgc tagccctttt 120
gcattgattg agaggctttt caaaattaat cattgctatg atttcaatat ctgttcccc 180
aaaactcgag 190
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<210> 422

<211> 173

<212> DNA

<213> Homo sapiens

<400> 422

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gaattcgcgg cgcgctcgac tgccatcatc accacgtata cttaggactt acgtgatcga 60
gttctttttg agcagcttat ttgaaggtaa cctgcagagt taaaatgcat ttggcatcct 120
tcctaattgag agacaaaaa tatttttact tgggtttcct gtggtacctc gag 173
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<210> 423

<211> 214

<212> DNA

<213> Homo sapiens

<400> 423

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aaagccacct ggtctctgga tcttctctta cagatcacct caacacttaa atcctcaaat 120
tctaacatat acatttctac ttattggcat ataaatgttg gtaaatgtac tacaatcatt 180
tcattgcaagg cagctgttgt ctacagtccct cgag 214
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<210> 424

<211> 170

<212> DNA

<213> Homo sapiens

<400> 424

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gaattcgcgg cgcgctcgac tgacattcca atcatttagt attttaggac ctgtgaataa 60
cttccaacaa aattaatgaa taccatatta gtattataaa atattataaa gtaataatta 120
tatcatctat ataacttcaa agtatgatgt ttatacaaag aatcctcgag 170
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<210> 425

<211> 187

<212> DNA

<213> Homo sapiens

<400> 425

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gaattcgcgg cgcgctcgac ctaccactag agttaccac tgttcccagt caggcatatt 60
tcttcccaat cctgtcctct ctgtgtattt ggtaattgag taaatcatct ctcccataat 120
taatctcctt taaaatttgg aataatatag ttgttagaat aatataataa tcatgcagaa 180
tctcgag 187
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<210> 426
<211> 148
<212> DNA
<213> Homo sapiens

<400> 426
gaattcgcg cgcgctcgac agagtctgtg ggaatttgtt ccagtgcag gtggaaaaac 60
tgccctgctc tgagcatcaa tgccttgtgc tgttctaaca ttttggtttt tttctgctgc 120
aatcttcacgc ttggcccttt ccctcgag 148

<210> 427
<211> 204
<212> DNA
<213> Homo sapiens

<400> 427
gaattcgcg cgcgctcgac caaagtgtta ggaacatggc agaaagggtga cacctggaga 60
ccaaatgcag ggtaaggagt actgcagagg tcacagggaa gtcacagAAC agtaatacgc 120
tagcaggggc atggggcgtg aagaacagaa gacaggaagc gtttcagaga ctccaaagaa 180
gaaatcaggg ccaaccaact cgag 204

<210> 428
<211> 216
<212> DNA
<213> Homo sapiens

<400> 428
gaattcgcg cgcgctcgac gtttacgggt atgttctcat ttctcttaag aattgctggg 60
tttcatggta ttttttactt cataagaaac tatcaaaact aaccaagag gctttgccac 120
tttgcatctc caccagtaat gtatgaggat tctagttgcc ccctatctc acaaattagt 180
attgccagtc ttcccaattt tttctccat ctcgag 216

<210> 429
<211> 214
<212> DNA
<213> Homo sapiens

<400> 429
gaattcgcg cgcgctcgac ggaaggtagt gccaccttct cctatgactg atcctactat 60
gttgacagac atgatgaaag ggaatgtaac aaatgtcctc cctatgattc ttattgggtg 120
atggatcaac atgacattct caggctttgt cacaaccaag gtccatttc cactgaccct 180
ccgttttaag cctatgttac aacaagaact cgag 214

<210> 430
<211> 137
<212> DNA
<213> Homo sapiens

<400> 430
gaattcgcg cgcgctcgac gtaagttgtc acagggtagt ctcttaaaaa tcaaagctga 60
atctgggtgt ctttacaagt acctttgagt gaagcaagca agctatgttt atccttcact 120
gtctttccct cctcgag 137

<210> 431
<211> 245
<212> DNA
<213> Homo sapiens

<400> 431
gaattcgcg cgcgctcgac cagtaatcca gaaagtcatt atatttcaaa ttcagcattt 60

aagatagctg aaaaagaaca tcactacctc cttaattctc tcattggaaa tttagtttta 120
 attttctgat gcttaaaact ttctgtgctt cagtttttcc tttttataaa tgtttgatca 180
 tatttaccat ctccctaatt atggtagaca taattatcat aattaggtct agccccagac 240
 tcgag 245

<210> 432

<211> 248

<212> DNA

<213> Homo sapiens

<400> 432

gaattcgcg cgcgctcgac atataagtga cagggataaa atataaacct gaaaaggatc 60
 ctagaattat cgtttagttc aactttttta atttatctat aaggaaacta agctctggaa 120
 agatggaaag aaatcttccct agaccaaata agccacataa ggattctgta ttttatttgt 180
 tttgtttttg tttatttttt agtttgtttt ttcattgtaag gatttttaat cttccccacg 240
 gactcgag 248

<210> 433

<211> 203

<212> DNA

<213> Homo sapiens

<400> 433

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 gtcagtattt ctcttgagat agagttaagt tggtttctcc ttcagttaaa gactccttgg 120
 tagttttggt tagttttcaa agtcattcag ctattgaaac aatgaaaca ttacagcatt 180
 tagtttccgt gattgtactc gag 203

<210> 434

<211> 218

<212> DNA

<213> Homo sapiens

<400> 434

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 tattagctac tagtttcatt ttaacttagt taaggaggca taaaatgtta ttaaaggact 120
 tatttttatt tatttattta ttgagacagg gtcttgctct gtcacccagg ctggagtgc 180
 gtggtgtgat cataggtcac tgcagcctta aactcgag 218

<210> 435

<211> 239

<212> DNA

<213> Homo sapiens

<400> 435

gaattcgcg cgcgctcgac gcttctttat ccaacttact actgtgtgtc atttaagtgg 60
 gggaatttag acccttgaca ttgaaagcta atatctaaat ctgagggttt catcctatca 120
 tgaaattggt agctggttac tttgtagttt ctactttgtg gttgctactg tgtgcttgcc 180
 ttataggacc tatgggctat gtacttaagt gtgtttttgt ggtagcaggc cgccctcgag 239

<210> 436

<211> 217

<212> DNA

<213> Homo sapiens

<400> 436

gaattcgcg cgcgctcgac gctgtatgca tttttttctt agaggtaatc tgttatttgg 60
 gaatcaggaa aaaagtttta aaattcattt tttaaaaata agttcagggt ataacattta 120
 agaagttaa tcttggtttt tcagacttgc agaaaaact ttagaaatgc tgactctaaa 180
 atttatcttt catatgttgc tggtaggtag actcgag 217

<210> 437
<211> 160
<212> DNA
<213> Homo sapiens

<400> 437
gaattcgagg cgcgctcgac cttcattgat cttttctctt tctgcatgg taatgagaac 60
tgcccgtttc acctccttta cctatcattt tcttccttac tgcattttca cagcatgcta 120
tttctctgag atgttccagc aagcaggcca agcgtctgag 160

<210> 438
<211> 180
<212> DNA
<213> Homo sapiens

<400> 438
gaattcgagg cgcgctcgac ccaacctttg ctttggcctt taacaactca gtgttttggt 60
ctaattcttca agaggaattt gaggttcact tgaataagtt agactagttt gaggtgggtg 120
tagctagagg attgaagtcg taccaaaaaa aaaatgtatg tatatgtata tgcctcgag 180

<210> 439
<211> 211
<212> DNA
<213> Homo sapiens

<400> 439
gaattcgagg cgcgctcgac tcaagctgta ctgtgagcag acgcattggt attatcattc 60
aaagcagtct cctctttatt tgtaagttta cttttttagc ggaaactact aaattatttt 120
gggtggttca gccaaacctc aaaacagtta atctccctgg tttaaaatca caccagtggc 180
tttgatgttg tttctgccc gcacctcga g 211

<210> 440
<211> 264
<212> DNA
<213> Homo sapiens

<400> 440
gaattcgagg cgcgctcgac aacacctcca gagagtggta ttttggatt tatgataaac 60
ttctctgcat ttcttggtgc agccacgatg tatacaagat acaaaatagt acagaagcaa 120
aatcaaacct gctatttcag cactcctggt ttttaacttg tgtctttagt gcttgaggatg 180
gtgggatgtt tcggaatggg cattgtcgcc aatttccagg agttagctgt gccagtgggt 240
catgacgggg gcgtctctct cgag 264

<210> 441
<211> 174
<212> DNA
<213> Homo sapiens

<400> 441
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atgagctacc gcgccagct gacttgatca gcttctatgg tgtgctttac atttttctg 120
cttttgagca tttctgagag gcctcgtgtt ttcttttctt taacaaacct cgag 174

<210> 442
<211> 166
<212> DNA
<213> Homo sapiens

<400> 442
gaattcgagg cgcgctcgac tgaggccga ggttctggga aggtgtacag gcagttaagt 60

ttcgggggatg aagtggactg gcatactctcc atatattcag ttattttatat gtaattttga 120
 aaactttgtt caggaacctt tttgtattga aagaacaaaa ctcgag 166

<210> 443
 <211> 153
 <212> DNA
 <213> Homo sapiens

<400> 443
 gaattcgcgg ccgcgtcgac tctgctttta ctgcactctca caatttttga tatttttcag 60
 ctcaactcagt ttagtgattt tttatttttc ttgagactct ctatgaaata cacatcattc 120
 agatatatgt tgttttagtg ccaagtactc gag 153

<210> 444
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 444
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 ttaatccctt tatattataa agcagggttac acagtgttaa atcaactcct tacacaatct 120
 tttttaaaaa taatttaaga gaagaaatga gaaacatact aataggtctt acatatacct 180
 acatatttat tgtttctagc actctctctt tcttctatgg attcaggcgt ctcgag 236

<210> 445
 <211> 125
 <212> DNA
 <213> Homo sapiens

<400> 445
 gaattcgcgg ccgcgtcgac taatcttgtg aaattagcat tctagcaaga agacaggcaa 60
 taaaccataa ccatacttaa gtaagttaat tatactatat gttagaaagt tctgagacgc 120
 tcgag 125

<210> 446
 <211> 346
 <212> DNA
 <213> Homo sapiens

<400> 446
 gaattcgcgg ccgcgtcgac atttttttta acctgccttt ttcactcaagt tctgttttct 60
 actctttatt tcaactgtag tgagtgttag gtaaggctgt tgattggggt tcaaagctga 120
 gaacttcagg cctcagttgg ttctagttcc agcattgctt ttcacttaac ttctctgagt 180
 ttcatttcct tccatgataa tgagagaatt gggccctttg aactaaata aactgggtg 240
 ggtggatctg aagacatttt atctgcttat tcttttcact cttatgtctc tgtcaaccgg 300
 attgacagat tctcatgtt ttcactctgg tccacaacca ctcgag 346

<210> 447
 <211> 119
 <212> DNA
 <213> Homo sapiens

<400> 447
 gaattcgcgg ccgcgtcgac gtggcgacaa atttaagaac agagcttttg attaagaggt 60
 gaagtattac ctacacaaag atgagagtca aagctgaaag aagggatag catctcgag 119

<210> 448
 <211> 140
 <212> DNA
 <213> Homo sapiens

<400> 448

gaattcgcgg ccgcgtcgac ttttattttc ctatcagagg acttctaggt agttctgaat 60
 ttaaaattag attaaatttc cttagatcac ctctaaaaat taaaagaatg gtattagttc 120
 caagtagttt gtcctcgcgag 140

<210> 449

<211> 190

<212> DNA

<213> Homo sapiens

<400> 449

gaattcgcgg ccgcgtcgac ctatttttagt ttttactctg aattaattgc aaggaaagct 60
 tcaaaacttca ttttgtegtta ttcttttttaa aatgtatttt ttgttttaaaa gcataagtgt 120
 ttttactctt ttatttgtga tggaaaaata tgagaatcca atagtcaacc aaggtaacgg 180
 aacactcgag 190

<210> 450

<211> 260

<212> DNA

<213> Homo sapiens

<400> 450

gaattcgcgg ccgcgtcgac ctagtccagt gttttaaccc ctaagttagc tttgggagct 60
 aggacacaag ttcacaagtg tggacaggaa cattaaactt tctgccagcc gaaatctgtc 120
 aggagcttgg ttcagatttt ttttaactct aaaaagcgct ttgggtcaaa gcagattcgt 180
 taagagtgtg gggagttttt gttttgtttt attttaagct gcattaaact ccaatgtata 240
 tgaaaggggc aatcctcgag 260

<210> 451

<211> 245

<212> DNA

<213> Homo sapiens

<400> 451

gaattcgcgg ccgcgtcgac attctgtttg tgtacatttc tctctagaag ttagtcagaa 60
 cagtgtcttt aatttatgag gctttataat ctactttatt gatagactcc agagataggg 120
 aaacatttca tactaacaca agagcaaagg tctttatgaa atatagacat acgggtctcac 180
 aagcatcaat atttttgggt gtgttttttag ttatactgtg tataataaac agagtgaatc 240
 tcgag 245

<210> 452

<211> 155

<212> DNA

<213> Homo sapiens

<400> 452

gaattcgcgg ccgcgtcgct ctctcccag ctccctaca ttcttccatg ctagtccttt 60
 tcatcctctg ggtgtctgca tatgtggccc ctctcctatg cagcttttcc tggccagcct 120
 atggaagtag gtccatcagg caccctccc tcgag 155

<210> 453

<211> 217

<212> DNA

<213> Homo sapiens

<400> 453

gaattcgcgg ccgcgtcgac ggagatttgg atttaagaca ggaaattgga atgtgtcttt 60
 ttgggtgttc ctcatctac tgcttatgtt gactatgggc aggaatcttt acctcttaac 120
 ttcatTTTTT acgtttattg aaatggtact ttctatttat ctacttatca gtactaggca 180
 gattctgtat aactttcagt ttcaggatac tctcgag 217

<210> 454
 <211> 249
 <212> DNA
 <213> Homo sapiens

<400> 454
 gaattcgcgg ccgcgtcgac tgtacttcac tcttctctct cacttctgac gaagaaacaa 60
 gttggatgtc ttttcccaat ggtgctgagt catccagtc tctgtctttg gtactgctgg 120
 ccctctgggtg ccatagcaat ctgtttctgt tctcttttgc ttttgttggc acccagaaat 180
 ctaacctgtg ctgtttccat tagtgctcca ggcaagacag aaacccatcc cttgggtggc 240
 acgctcgag 249

<210> 455
 <211> 226
 <212> DNA
 <213> Homo sapiens

<400> 455
 gaattcgcgg ccgcgtcgac cggcctctgg ggcggagccg caggctctgg tacaatactt 60
 ggtgttacga aaggatctat cacaagctcc gttctcctgg ccggcgggcg cactggtagc 120
 gcaggcttgg cagcgggcca ccggcgccct gcacactcac cgcgaccacc cgcacacagc 180
 cgcttacctc caagagctgg ggcgcatgag caaagtgggc ctcgag 226

<210> 456
 <211> 428
 <212> DNA
 <213> Homo sapiens

<400> 456
 gaattcgcgg ccgcgtcgac ctaaacctcg attgaattct agacctgcct cgagccctgc 60
 ccagatctgt tctgcaacat tcaccgttct ctgcatccag ctctgcttat ctgctgttac 120
 cttggacacc agagcagcta taggtatctg ccagagctat gaaatcattc agccggatcc 180
 tcttctctgt ctctctctc ccggcctga ggtccaaggc cgctccctca gcccctctgc 240
 ctttgggctg tggctttccg gacatggccc acccctctga gacttccctt ctgaagggtg 300
 cttctgaaaa ttccaaacga gatcgctta acccagaatt tcctgggact ccttaccctg 360
 agccttccaa gctacctcat acgggtttccc tggaaacctt cccacttgac ttcactgagc 420
 acctcgag 428

<210> 457
 <211> 451
 <212> DNA
 <213> Homo sapiens

<400> 457
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 gcaagccaga aacaccaatg gctgcggaca attattggat taaaaaaaaa aaagagtccc 120
 aagtaaaggc tgctctctta ggacagcagg aacagggcag cctagcaaga cagaaaattt 180
 ttagacaata accaacctag gccatgagaa aaacgggcct cattcccatc cggtcagcaa 240
 atactgagtg gggaaacctag actccacct tcacctggtt ataacgaggc actcttcttg 300
 actcctacta caagggcggg atcagagaag gtgagcgggg aatcctgccc tctctctccc 360
 ctccagctgt aatgtcatac agactacaca gggagcctgg actttcactc cacctagcag 420
 taacaaggca cctctccccc atacactcga g 451

<210> 458
 <211> 394
 <212> DNA
 <213> Homo sapiens

<400> 458
 gaattcgcgg ccgcgtcgac ccaaagccta aaattagaac tcggaagtcc tccagaatga 60

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caccctttcc agctacctct gctgcccttg agccccaccc ttccacctcc acagcccagc 120
cagtcactcc caagcccaca tctcaggcca ctaggagcag gacaaatagg tcctctgtca 180
agaccctga accagttgtc cccacagccc ctgagctcca gccttccacc tccacagacc 240
agcctgtcac ctctgagccc acatctcagg ttactagggg aaga'aaaagt agatcctctg 300
tcaagacccc tgaacaggtt gtgccacag cccttgagct ccagccttcc acctccaccg 360
accgacctgt cacctctgaa tccaccaact cgag                                     394

```

<210> 459

<211> 202

<212> DNA

<213> Homo sapiens

<400> 459

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gaattcgcg cgcgctcgac caggetcaag cgatccaccc acctttgect cccaaagtgc 60
tgggattatg tgtgtgagcc acagctcctg gcctcttttt ttgtttttcc tateccaagt 120
tgtattacta gttttgggga gtttgagac aattgaatat tctataggct gtgttgagc 180
tttagatgga tcgtccctcg ag                                     202

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<210> 460

<211> 126

<212> DNA

<213> Homo sapiens

<400> 460

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gaattcgcg cgcgctcgac ctgggtggat ggtggttgcc caagtcaaaa agaatccttg 60
cttctctctt ttttctcacc cccacactca atgcaccctc aggtcctgtg cctccatctc 120
ctcgag                                     126

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<210> 461

<211> 187

<212> DNA

<213> Homo sapiens

<400> 461

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gaattcgcg cgcgctcgac tcttgactct tcagagtctg tacctcaaaa gaacaatgag 60
aacatttgcg ttgctttctg ctgaatccct aatctcaaca atctatacct ggactgtcca 120
gttctctctc tgtgctatct tctcttctat ccaagtagaa tgtacgccag gagctccttc 180
cctcgag                                     187

```

<210> 462

<211> 193

<212> DNA

<213> Homo sapiens

<400> 462

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gaattcgcg cgcgctcgac ccttattttc catgacagat cttaacgaca atatatgcaa 60
aagatatata aagatgataa ctaatatagt tatactgagc ctgatcattt gcatttcggt 120
agctttcttg attatatcaa tgactgcaag cacctattat ggtaacttac gacctatttc 180
tccaaggctc gag                                     193

```

<210> 463

<211> 224

<212> DNA

<213> Homo sapiens

<400> 463

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gaattcgcg cgcgctcgac gatatttaat actttctgat caaacaggtt caaagtaaaa 60
cgttaaaatt cacatttctt ttaagaact cttaaagtgt aacagttacg ccatacttca 120
taagtgttaa agaaaggtat aaaatttggg aacattttgt tgggcatagt agtgattggg 180
tgaaaaggat aaattatata aaaatgagaa tgtgcttgct cgag                                     224

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<210> 464
 <211> 151
 <212> DNA
 <213> Homo sapiens

<400> 464
 gaattcgagg ccgcgtcgac caaactcctg ttgctttcgt ctatcagcgt tctcatttta 60
 aaagaatatg aggcctcattt tacctcttct tctccactc ctagtcttcc tttttatatt 120
 tgacattggc agtagttcca gtacgctcga g 151

<210> 465
 <211> 292
 <212> DNA
 <213> Homo sapiens

<400> 465
 gaattcgagg ccgcgtcgac aaatgggtgt aactagaatg aacataagggt aatgctatag 60
 agttatttcag gaaaatagcc taattacatg actctcttct ttactagtaa ttcacatttg 120
 tctggcactt tacaattcat ttgcaataa tgacacaaaa gcacagagag attaaggagc 180
 tttcctgaag tctcctcaact tgattatcta ttttttctg tctgcctac acaacttcta 240
 ccccggtggc accctcagct ccaccatttt gcaccatcaa tctgcctcag ag 292

<210> 466
 <211> 178
 <212> DNA
 <213> Homo sapiens

<400> 466
 gaattcgagg ccgcgtcgac agaagatttg taaaagaaat aggcctttttt ttttttttg 60
 ttaattcaaa cgaggggaaa attagatagc attttcccct aaagaaatgt taatgttcat 120
 tttgtggctt tgttttcaag tttcaggagc catgtacatc tcagaagcgt tactcgag 178

<210> 467
 <211> 144
 <212> DNA
 <213> Homo sapiens

<400> 467
 gaattcgagg ccgcgtcgac ttgggttttt gtttcttcat tttttatgct tttctttctt 60
 cttcttttct ttgtgtttct ctttaccctc agaggagcag ctccagttcc tctgaaggta 120
 aagagaaaca caagaagtct cgag 144

<210> 468
 <211> 171
 <212> DNA
 <213> Homo sapiens

<400> 468
 gaattcgagg ccgcgtcgac ctttttttaa aaaaagtatt tcattgaagc aagcaaaatg 60
 aaagcatttt tactgatttt taaaattggt gctttagata tatttgacta cactgtattg 120
 aagcaaatag aggaggcaca actccagcac cctaattgaa ccactctcga g 171

<210> 469
 <211> 254
 <212> DNA
 <213> Homo sapiens

<400> 469
 gaattcgagg ccgcgtcgac cagatgatga atttgagaac ccctgtaccc ttcgtcctac 60
 catggaaaag gttgttcgct cagcagctac aagtggagct ggtagcacta cctctgggtg 120

tgtgtctggc agcctcggct ctcgggagat caactacatc cttcgtgtcc ttgggccagc 180
 cgcattgccc aatccagaca tattcacaga agtggccaac tgctgtatcc gcatcgccct 240
 tctgccccct cgag 254

<210> 470

<211> 181

<212> DNA

<213> Homo sapiens

<400> 470

gaattcgcgg ccgcgtcgac acatgtacct gtaccagcat gtcctggcca ctctacagt 60
 ccgagacct ctaagagcca ctgtgtttcc tgagactgta ccattcccttg cactagagac 120
 ttcaggaact acttctgagc tagaaggccg tgccctgag ccattacccc cagtccctga 180
 g 181

<210> 471

<211> 242

<212> DNA

<213> Homo sapiens

<400> 471

gaattcgcgg ccgcgtcgac gaatcccatc caggtaatct tctgttggct ggctgtagaa 60
 ctacggagaa catctggaga aacatgtcaa ggggtgtgtt gaaatcgttg agcctactcg 120
 attttgtcgt gctgttgcgc ggttttcact tggcactgtc ctttaaacct cttctgtgcc 180
 gtgactctgc agtgtctggc agcgtagttag actctactcc ctctatggac gtgatccctg 240
 ag 242

<210> 472

<211> 219

<212> DNA

<213> Homo sapiens

<400> 472

gaattcgcgg ccgcgtcgac gagcatcctg cgctactggg actggctgat cgcatacaac 60
 gtttttgtga ttacgatgaa aaatatcctg tcaataggag catgtggata cattggaaca 120
 ttggtgcaca atagttgttg gttgatccag gctttcagcc tggcctgcac agtcaaaggc 180
 tatcaaatgc ctgctgctaa ttcacccctg acactcgag 219

<210> 473

<211> 220

<212> DNA

<213> Homo sapiens

<400> 473

gaattcgcgg ccgcgtcgac agaacatcga ccgttcctc cccatcacca agctcaagta 60
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 cctacaccag gactgggaag tgcagtacca acaggacacc ccggtggccc ccgcttttga 180
 cgtcaatgcc ccggacctct acattccagc aatactcgag 220

<210> 474

<211> 219

<212> DNA

<213> Homo sapiens

<400> 474

gaattcgcgg ccgcgtcgac cacgaactgc tttctgtaat tgcactgttg ataaatgttc 60
 cgagagtctc cattgttgta caggatcttc agttattcga ggggaatgag gcagggtcaag 120
 ccgatgctag ccactagttt gatttttttt ctgttttata gtttgcgctg catggtactt 180
 gtgaagctta aatattttga gtgttctact ggactcgag 219

<210> 475
<211> 144
<212> DNA
<213> Homo sapiens

<400> 475
gaattcgcg cgcgctcgac aaaaaaccct attttcacat acagtcacat tgggatttgg 60
agcttcaaca tatgaatttt cagggttatc attcagteca aagtacttaa tatgattctt 120
ttccgtttcc acatagtact cgag 144

<210> 476
<211> 176
<212> DNA
<213> Homo sapiens

<400> 476
gaattcgcg cgcgctcgac aaaggtagt gcctttaaaa ctaacctgtg ttagagttac 60
atgaatctgg ctctaaagta tctattttgc atccatttat atatagatct taaacagaaa 120
tactctaggt tgccacacca cagttttaag aagttatgct gctgctgtta ctcgag 176

<210> 477
<211> 155
<212> DNA
<213> Homo sapiens

<400> 477
gaattcgcg cgcgctcgac agaagctcaa gaagcacact ggagggttacc ttgaggcggt 60
tgtgtaatct gcatactagt ggagtagcca tggtagccgt agccacatgg gtgttctgtt 120
gctgttttgc aggttcaaac cttgtactac tcgag 155

<210> 478
<211> 122
<212> DNA
<213> Homo sapiens

<400> 478
gaattcgcg cgcgctcgac atggagttgg tcttagccgc tgcaggagcc cttcttttct 60
gtggattcat catctatgac acacactcac tgatgcataa actgtcacct gaagctctcg 120
ag 122

<210> 479
<211> 158
<212> DNA
<213> Homo sapiens

<400> 479
gaattcgcg cgcgctcgac ctttgaacgc acctcaggat ggcccgtact ttggaaccac 60
tagcaaagaa gatcttttaa ggagttttgg tagccgaact tgtaggcgtt tttggagcat 120
attttttgtt tagcaagatg cacacaagcc acctcgag 158

<210> 480
<211> 109
<212> DNA
<213> Homo sapiens

<400> 480
gaattcgcg cgcgctcgac cggatcaagg tctttcattt cttgttcgct tactttcgtg 60
aaatcctcac atcgttttta tggtagtagt caagacaagt ttactcgag 109

<210> 481

<211> 182
 <212> DNA
 <213> Homo sapiens

<400> 481
 gaattcgagg ccgcgctcgac ctacatgcta ttatagctgg atttttggca ggtatatcaa 60
 tgatgtttta taaaagcaca acaatttcca tgtatttagc gtccaaattg gtagagacaa 120
 tgtatttcaa aggcattgaa gcagggaagg ttccctattt tcctcatgca gataacctcg 180
 ag 182

<210> 482
 <211> 144
 <212> DNA
 <213> Homo sapiens

<400> 482
 gaattcgagg ccgcgctcgac ataaatcttt ctttttaata taaattggag gaaactaatg 60
 aataaatcaa aggttcgagc tgtacatgca gttactgtga ttttagtgtg tgtaataaaa 120
 tgctgtgaag cacacactct cgag 144

<210> 483
 <211> 194
 <212> DNA
 <213> Homo sapiens

<400> 483
 gaattcgagg ccgcgctcgac ccaattttta gttccacactt eggactcatc agaaatttat 60
 tttctgaaat gtacagccta atttattcta tgattttaat gtcttttctt ttaatctctt 120
 cctctcagta tacttactct ttgacctcaa gaagcctcca attccttaac caaccttttc 180
 cccctccct cgag 194

<210> 484
 <211> 194
 <212> DNA
 <213> Homo sapiens

<400> 484
 gaattcgagg ccgcgctcgac gtgggatata tcttttctgt tctatatttg gtagacaatc 60
 ttcttaaccg catgaagtcc cgggcgaagt tgctctccc attgtggta ggactcttca 120
 tggcctggac cctctggatg aatttctca ggaatctcac ttgctccatc ctcccgctc 180
 cccccaaact cgag 194

<210> 485
 <211> 228
 <212> DNA
 <213> Homo sapiens

<400> 485
 gaattcgagg ccgcgctcgac gaggaactat ttaagttttt cagagattga aattatttgt 60
 tttaaaaaga tcacattttt gtataaaaaa atcttgagag actaggaagc tatttgcaat 120
 agttcatgta tgaaatttga atgcaaaaaa ctaatttcct tagcattcac ttttttattt 180
 atttttcttt attttttaatt tttctgtaag ttactgggtt atctcgag 228

<210> 486
 <211> 121
 <212> DNA
 <213> Homo sapiens

<400> 486
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atcttgatcc actaaattta ttgcatgacc tatgaaatgg atcataaccc aaattctcga 120
g 121

<210> 487

<211> 217

<212> DNA

<213> Homo sapiens

<400> 487

gaattcgcgg ccgcgtcgac agacttaaag ttagagctgc gacgactacg agataaacat 60
ctcaaagaga ttcaggacct gcagagtcgc cagaagcatg aaattgaatc tttgtatacc 120
aaactgggca aggtgcccc tgctgttatt attccccag ctgctccctc ttcagggaga 180
agacgacgac ccactaaaag caaaggcagc actcgag 217

<210> 488

<211> 204

<212> DNA

<213> Homo sapiens

<400> 488

gaattcgcgg ccgcgtcgac ctttgacata tttattactg caagtagaat ctactaatg 60
acctattcct gtatggcctt atccaaatcg aaatcacaaag aacagaagaa taatgaaaaa 120
acagacaaga gttcattaaa tctcccagaa gttgattcag atgttgctaa gcccaaccag 180
gcatgtattt ccactgggact cgag 204

<210> 489

<211> 288

<212> DNA

<213> Homo sapiens

<400> 489

gaattcgcgg ccgcgtcgac aggattaata aatcttttgg catggtcgat ttgtaataaa 60
ttactgaaaa tgtgggatta caatgaaact cttaaagtgt gccacataag tcaaggaagc 120
cacctaagtc atgggatggg catgagtgag acactctgga ataactctga tgctactctg 180
ggactgcctt tgcagggtgg gacatcagct tcaactaagg gctcaccaga gactccttca 240
agggagcatt tcttggtttc catattgtgt ttatgtcatt tactcgag 288

<210> 490

<211> 266

<212> DNA

<213> Homo sapiens

<400> 490

gaattcgcgg ccgcgtcgac ggggagcacc cagtctttaa gagccaagtg ggggccccctt 60
ttcgaagcc acttcaggc caaggcagtc gccagggtt cttgtcccca ccttctgaac 120
cttcttcaaa cagtagtaca agctccctc agccagcctg cctgccagc gagggcccca 180
ggttcaaggt gttggcggg gcggaggga ggggaacggg atccttctcc cgctgcccac 240
caacaccaac actcacacac ctcgag 266

<210> 491

<211> 166

<212> DNA

<213> Homo sapiens

<400> 491

gaattcgcgg ccgcgtcgac atccctcttc ggatctctgt ctccccaca gcatggctca 60
gtcatttate attaacacat tagctctcag aagtttgctg ctatttgtcc accttttttt 120
ctttgttgc agtgagggaag gctgttctga attgcatgat ctcgag 166

<210> 492

<211> 246

<212> DNA

<213> Homo sapiens

<400> 492

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gaattcgcgg ccgcgtcgac ctcataggca aacatagaac atagattgta aacattttgc 60
tatatttggtg tcatgattat tttttgcttg tgtttgaaaa tatattaaag aaaattatat 120
tttacccta aattcttttag tacagatttc taaaaaataa gaacattttc ctgtatagtt 180
acaaaatcac cttttcaaac aaaataaaaa atgtttttta tatcatttat taccagtc 240
ctcgag 246
```

<210> 493

<211> 243

<212> DNA

<213> Homo sapiens

<400> 493

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gaattcgcgg ccgcgtcgac acaataatg ctactaggta gtgactaaat atagcaaaca 60
cttcacaga tattagaatt aggtcacact attgagggtta taatctgaag gttgtgttac 120
atagaacca ctttagatta ttatcaactt ggactaggct ttattttata atagcatagt 180
aagtaatac tattgtgtca tttcttcaac cattttatc taagatccat gaggtactc 240
gag 243
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<210> 494

<211> 207

<212> DNA

<213> Homo sapiens

<400> 494

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gaattcgcgg ccgcgtcgac tacacattag tgcattgcgt atatcaactg gccctcaatg 60
aagcatttaa gtgcttgga ttttactaaa ctgacttttt tgcaactttg ggagattttt 120
gaggggagtg ttgaaaattg ccaaacactc acctcttact caaaacttca aataaaatc 180
acattttcaa gagagagcac cctcgag 207
```

<210> 495

<211> 203

<212> DNA

<213> Homo sapiens

<400> 495

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gaattcgcgg ccgcgtcgac agctattata taaatatata ttctggttat agttctaata 60
tgagatggt gtgtgcaatg ctggcctgtg gtggtctgtg taatgcttta acttgatagg 120
aggaggccag gctcagagct gagatgtggc ctgaaccttc cctgtatcga tcctttaatt 180
tagaactgtc aagatgtctc gag 203
```

<210> 496

<211> 172

<212> DNA

<213> Homo sapiens

<400> 496

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gaattcgcgg ccgcgtcgac taattttttc taagtaagat acaaaaaatt ttcattctaaa 60
gtaatatttc actttatatt gtaaagaagg taggtatatt ggtggctgag gtctcttgaa 120
attgctaaag ggaaattttt ctatggtaat gctcttacgg ataattctcg ag 172
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<210> 497

<211> 180

<212> DNA

<213> Homo sapiens

<400> 497
 gaattcgcgg ccgcgtcgac gaggggaggt acagaaagag gagaggagag aaagagagag 60
 agagaggaaa aaaagacagg aaagaaaaga aagaaaagga aagaggaaag gaaagggag 120
 ggaaaaggaa aggaagaaag aatgcaaaga ttgagaaaaa tgtgggcact gctgctcgag 180

<210> 498

<211> 182

<212> DNA

<213> Homo sapiens

<400> 498
 gaattcgcgg ccgcgtcgac aatccttgag ccagggctgc catataacct gacaggaaca 60
 tgctactgaa gtttatttta ccattgactg ctgccctcaa tctagaacgc tacacaagaa 120
 atatttggtt tactcagcag gtgtgcctta acctccctat tcagaaagct ccacatctcg 180
 ag 182

<210> 499

<211> 174

<212> DNA

<213> Homo sapiens

<400> 499
 gaattcgcgg ccgcgtcgac ggagcaataa cttacagttc agatgaagct cctccctctc 60
 attcttcttt cctccctccc tttcctggta gctcctttc ctcccttctt gcttccct 120
 tccttcttct cttattcttt tttattttgt ttaaatagta ccacagatct cgag 174

<210> 500

<211> 171

<212> DNA

<213> Homo sapiens

<400> 500
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 tttgtttttt gttattgata ttaaacagtg taatctttgc aagcgtatat tgaagattat 120
 tctggagcat ttattgcctt accagaaatg ttagtaggaa atgttctcga g 171

<210> 501

<211> 169

<212> DNA

<213> Homo sapiens

<400> 501
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 tcagggcatt taatccagga actgcgaaga ggatctcaag cagccaatat ttactgcac 120
 aacttcaatc aggatgcggt tgcaattctt gttcccgacc tgcctcgag 169

<210> 502

<211> 332

<212> DNA

<213> Homo sapiens

<400> 502
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 acaccatcaa aaaagaaaaa aaggggaatat ctggatttcc tgggcgagga ggagcgagtc 120
 tgctcgggag ctgttccagc aggcgatttt taaatactgc ttctacgcc ctatacaact 180
 tggcttcaca tacttttaca ctaactttat atgattttta aaaactgggc tgatcggact 240
 tctcgtcctg ggacactgtt tactggagtc tggcgggctc tccgtgctcc tcttggtacc 300
 tcattttggg gagaacctta aaccactcg ag 332

<210> 503

<211> 234

<212> DNA

<213> Homo sapiens

<400> 503

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gaattcgcg cgcgctcgac attcaatttg cattgtaatt cagccactgc caggatgaga 60
tcctacttct ggttttcagc catctcagct ctgcatctat gggacataag ggcagacata 120
gaaacttttg attcattcat gtggtgcttg agctgggaat ttgaatccct gaattcatc 180
ttcttttttc ccccaatttg tctagtacaa ttagggagcaa caaccactct cgag      234

```

<210> 504

<211> 147

<212> DNA

<213> Homo sapiens

<400> 504

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gaattcgcg cgcgctcgac aggacttatg atccaattca ccaaagatt aaatgaaacc 60
accctgtggt ttaaaatata tataatgttc aacctaatgt atatgcaaca tttattctat 120
tctaattatt tgacagggaa actcgag      147

```

<210> 505

<211> 311

<212> DNA

<213> Homo sapiens

<400> 505

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gaattcgcg cgcgctcgac gcctcgaaft ggatcggtt ttttttttc ctccagggag 60
aaggggagaa atgtacttgg aaattaatgt atgtttacat ctctttgcaa attcctgtac 120
atagagatat attttttaag tgtgaatgta acaacatact gtgaattcca tcttggttac 180
aaatgagact ccttcagtca gttatccaaa taaaagcagt tctgaaacta tccctttctt 240
tgttatgggt ggaaggtggg gctccaggcc ttcgcagtct gtggttata aaatgtgcag 300
aggccctcga g      311

```

<210> 506

<211> 207

<212> DNA

<213> Homo sapiens

<400> 506

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gaattcgcg cgcgctcgac gtcacaaatg actttttttt tttcaattaa ggaaaaagct 60
ccatctctac ctttaacatc acccagaccc cgcgccctgc ccgtgccccca cgtgtgtgct 120
aacgacagta tgatgcttac tctgtactc ggaaactatt tttatgtaat taatgtatgc 180
tttcttggtt ataaatgcc a cctcgag      207

```

<210> 507

<211> 374

<212> DNA

<213> Homo sapiens

<400> 507

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gaattcgcg cgcgctcgac gtactctaaa gttagaatct cctgatcttt cagagatgc 60
tggaactggag attggcaagt gcacatttca tcctggctgt gacactgaca ctgtggagct 120
caggaaaaagt cctctcagta gatgtaacaa caacagaggc ctttgattct ggagtcatag 180
atgtgcagtc aacaccacac gtcagggaag agaaatcagc cactgacctg acagcaaaac 240
tcttgcttct tgatgaattg gtgtccctag aaaatgatgt gattgagaca aagaagaaaa 300
ggagtttctc tggttttggg tctcccttg acagactctc agctggctct gtagatcaca 360
aaggtccgct cgag      374

```

<210> 508

<211> 195

<212> DNA

<213> Homo sapiens

<400> 508

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gaattcgcg cgcgctcgac ctggatata caactttcca tctaaaacct actgtctttt 60
ctgtcttttc attgcattac cacttcacc cctgcaaact gattcatcat gatctccagt 120
cccttgatca ctactttctc tctagttttg ggctccctca acctcacttc ctacctgatg 180
gggcctaaac tcgag 195
```

<210> 509

<211> 181

<212> DNA

<213> Homo sapiens

<400> 509

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gaattcgcg cgcgctcgac caagtcgaag cctccgaagt acctgttga tagctgtgcc 60
cctctgctcc gataccgtgc ccactcagaa ttttaaggatc tgatactgcc caccatacag 120
aagtccttac tgaggagtcc agagaatggt attgaaacta tttctagtct gcgggctcga 180
g 181
```

<210> 510

<211> 160

<212> DNA

<213> Homo sapiens

<400> 510

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gaattcgcg cgcgctcgac taagattaag gattcttagt gagatcatct tgccaatttg 60
ttgtacatct ctcatcatt gttgggggaa aaaaaagcac aactatacct ctttaatggt 120
attttcttcc attatcctc tgactcgggt tctccctata 160
```

<210> 511

<211> 214

<212> DNA

<213> Homo sapiens

<400> 511

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gaattcgcg cgcgctcgac cgagttatct ttattagcct tttttgaatt gaatatctct 60
ggtattttct aaactagaat tgcacttaat tctaataat aaatttattt attgaattgg 120
taaaaagaga ttggccctg ttctagcttt gtgactgttg tgctctcata aaaagtctac 180
tatatttatg attgttaggc gctatctgct cgag 214
```

<210> 512

<211> 209

<212> DNA

<213> Homo sapiens

<400> 512

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gaattcgcg cgcgctcgac gggggttcta gaacatgtgt gaataagtcc ttgttttatt 60
ctcagcctct atgagggaaa tgaatgccca gagaccagag cccattctg cagctcctcc 120
ctgttttagc tgtggaaaac tggcctccaa actctgcagt gacaacacaa gatggccgtg 180
aagcaagcct ggcaccagag ggtctcgag 209
```

<210> 513

<211> 143

<212> DNA

<213> Homo sapiens

<400> 513

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gaattcgcg cgcgctcgac ctcgagtttc aaaacataat agtatacaaa atataaaata 60
tcttaaatat ttataaaaat cacaagaaaa aaatagaacy tatgaaaata tttttatctg 120
agttctcccc cattattctc gag 143
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<210> 514
 <211> 130
 <212> DNA
 <213> Homo sapiens

<400> 514
 gaattcgcgg ccgcgtcgac gtcattcttt gtcagtaaag ttttgtaact tcctcacaaa 60
 gttctcgtgc ttcttataaa taatgtattt tacatcttac acttctattg ctattatata 120
 ttgcctcgag 130

<210> 515
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 515
 gaattcgcgg ccgcgtcgac gctctgaata gttaaaaatt aaatatattt tttcttcccc 60
 aagctttagg taaggagaag aggggtcaag agttaaactt agagaccctt tgtctctgag 120
 aagcattcctt ctaagacatt ctgttgaggt tccctcagta ctattcctta caactggagt 180
 gggtagaagc cttatgaaaa ttatactgag aacctgcctc gag 223

<210> 516
 <211> 185
 <212> DNA
 <213> Homo sapiens

<400> 516
 gaattcgcgg ccgcgtcgac tttaaaagag tgtaatggaa gatgagaggg attctatttt 60
 ggaccacatg ttgtgtgtga ggagtgtcat tgacagtaag caccaccaggc gtgtgtctgg 120
 gagagcattg ggtatcgctc acttctgcag gtacttggtt tttttctca tggccgaaac 180
 tcgag 185

<210> 517
 <211> 156
 <212> DNA
 <213> Homo sapiens

<400> 517
 gaattcgcgg ccgcgtcgac gcccccagtg tcctttctgc tgcagggtgcg tttttgctgt 60
 tcacaaatgc ttctgctgtg ccttctttgg tgtgttctgc ctcttctcct gagactgtgt 120
 ttcttcaag ttcaggggtga gtctgatctc ctctgag 156

<210> 518
 <211> 213
 <212> DNA
 <213> Homo sapiens

<400> 518
 gaattcgcgg ccgcgtcgac ctccccacat tcataacact tagatttata aaagtagttt 60
 cgccttcgga tgaactcagc tgccttcca ttgtcaatag caatgcttgc ttttatcact 120
 ctaccaaata actgtttgtt gtttattgcc ctggtacagt tttgtgcaga gtctttatcc 180
 aaaaataaaa taaatgaac ccctttactc gag 213

<210> 519
 <211> 196
 <212> DNA
 <213> Homo sapiens

<400> 519
 gaattcgcgg ccgcgtcgac tcgggaagct ataaaaattg taaaaggctt attagtaata 60

ttacacagga tactttaagg cagccctgca gagtagcatg catctagctc ccagagtttc 120
 tttatgcatt aatattgcac atgttctcct taccatgtg ggcaaggcag cccaccagcc 180
 cctcataacc ctcgag 196

<210> 520

<211> 238

<212> DNA

<213> Homo sapiens

<400> 520

gaattcgagg ccgcgtcgac agatgttccg gccaccccgga acctcacact gcagtgtctg 60
 cgacaactgt gtggaacgat ttgaccatca ctgcccttg gtgggcaact gtgtggggag 120
 acggaactat cgttcttctt acgcgtttat tctctccctc tcattcctga cggccttcat 180
 cttcgctgt gtggtcaccc acctgacgtt gcgcgtcag ggaagcaact tcctcgag 238

<210> 521

<211> 197

<212> DNA

<213> Homo sapiens

<400> 521

gaattcgagg ccgcgtcgac gtgagagctc agagctacag agcctttcag atgaatttga 60
 aaacagactc tgtgtgtgtg tgcattgtgt catgtgtggc atatgtgccg tatgtcagta 120
 gcttgacagt tttcaaatcg tgcctatatt tttttgcata cacaattttt tgtgtttgca 180
 aactcagaat cctcgag 197

<210> 522

<211> 270

<212> DNA

<213> Homo sapiens

<400> 522

gaattcgagg ccgcgtcgac aaacttcaac acaatgaggt gttgccacat ctgcaaaactt 60
 cctgggagag taatggggat tcgagtgcct cgattatctt tgggtggcat cctcgatta 120
 ttactggtag ctggtgcttt gactgcctta cttcccagtg ttaaagaaga caagatgctc 180
 atgttgcgta gggaaataaa atcccagggc aagtccacca tggactcctt tactctcata 240
 atgcagacgt acaacagaac agatctcgag 270

<210> 523

<211> 208

<212> DNA

<213> Homo sapiens

<400> 523

gaattcgagg ccgcgtcgac ctcattcaat tcactacttc aatcaaccct attcaaatct 60
 tgtgcatcct tactcactga tgatgccgct gaacttctgc ctcttttatg ctgttacctc 120
 ctccttccct ctccttcacc ttagccctcc tagacctgac atcacttaca gcgggactaa 180
 ggtgcaggga acacggccca tgctcgag 208

<210> 524

<211> 230

<212> DNA

<213> Homo sapiens

<400> 524

gaattcgagg ccgcgtcgac attttaagga agctacttga attgctcatt ctgtgacttt 60
 atttgtgtcc taaacattct tcagtgaata taattttatt tcagtcaaac atttatgagg 120
 aaatgagatc acatctttgt cactggatgc tacttgaaga gggagtactt tgtaaccact 180
 ttgatgtgct gttatcacca cccctgccc tccgcaagg tctccctata 230

<210> 525
 <211> 641
 <212> DNA
 <213> Homo sapiens

<400> 525
 gaattcgcgg ccgcgtcgac ctacaagcag cttcccttcc tgctgtacca agtgacaagg 60
 aagtttcggg atgagccag gccccgcttt ggtcttctec gtggccgaga gttttacatg 120
 aaggatatgt acacctttga ctctcccca gaggtgccc agcagacctc cagcctgggtg 180
 tgtgatgcct actgcagcct gttcaacaag ctagggtctgc catttgtaa ggtccaggcc 240
 gatgtgggca ccacggggg cacagtgtct catgagttcc agctcccagt ggatattgga 300
 gaggaccggc ttgccatctg tccccgctgc agcttctcag ccaacatgga gacactagac 360
 ttgtcacaaa tgaactgcc tgcttgccag ggccattga ctaaaaccaa aggcattgag 420
 gtggggcaca cattttacct ggtaccaag tactcatcca ttttcaatgc ccagtttacc 480
 aatgtctgtg gcaaaccaac cctggctgaa atggggtgct atggcttggg tgtgacacgg 540
 atcttggtctg ctgccattga agtctctctt acagaagact gtgtccgctg gccagacctc 600
 ctggccctt accaagcctg cctcatcccc cctaactcga g 641

<210> 526
 <211> 264
 <212> DNA
 <213> Homo sapiens

<400> 526
 gaattcgcgg ccgcgtcgac ctactttatg ctgataaaac aggtctatgc agctaccagg 60
 acaatggaat ctacgttgac ttttagcaacg gaacaacctg ttaagaagaa cactcttaag 120
 aaatataaaa tagcttgcat tgtctctctt gctttgctgg tgatcatgtc acttggatta 180
 ggcttggggc ttggactcag gaaactggaa aagcaaggca gctgcaggaa gaagtgtctt 240
 gatgcacatc ttagagaact cgag 264

<210> 527
 <211> 244
 <212> DNA
 <213> Homo sapiens

<400> 527
 gaattcgcgg ccgcgtcgac ggcattttgt tcgaacacga gtagcagtgg tggaaagtgt 60
 aattggagga agattaagac tagtgtatga agaaagcgaa gatagaacag atgacttctg 120
 gtgccatatg cacagcccat taatacatca tattggttgg tctcgaagca taggtcatcg 180
 attcaaaaga tctgatatta caaagaaaca ggatggacat tttgatacac caccaacgct 240
 cgag 244

<210> 528
 <211> 273
 <212> DNA
 <213> Homo sapiens

<400> 528
 gaattcgcgg ccgcgtcgac ctttttttgt gaattgagtg ctgtttttgc ttttctcaga 60
 ttccaaatga gagtatacat ttttctttgt ttgatgtgct ggtgagatc tggctctgac 120
 cctgctgggc caagggttctc cagaaaacca ccatatagca gattagatta cacggatgca 180
 aagtttgttg atgtcatcca ttctgactcc aatgcctatt attttgttct cagtataatt 240
 gttccagata aaactatgat ggtgaactc gag 273

<210> 529
 <211> 412
 <212> DNA
 <213> Homo sapiens

<400> 529

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gaattcgcg cgcgctcgac ctttcattta tcatatgact tggtagaac cgtttttctt 60
accgtataaa acccgagctc tttagttatt ctggaaaatg aaagcacgtt cattgtcgtt 120
ctgttggtgt tccaacagaa cttggttctt gtggttactc aatatttcat tgtgtttagg 180
ccctgtggat ggagagttac caccaagagc tagaaatcag gccataaacc caccagccaa 240
tgctctccga ggaggagcca gccaccctgg aaggcatcct agggccaaca accatcctgc 300
tgcttactgg cagaggggaag agagatttag ggccatgggc aggaaccac atcaagggaag 360
gaggaaccag gaggggcatg ccagcgacga agctagagac caagaactcg ag 412

```

<210> 530

<211> 110

<212> DNA

<213> Homo sapiens

<400> 530

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gaattcgcg cgcgctcgac cctaaaccgt cgatggaatt ccagtacgtt ttgtgttaca 60
ttttagtctt gtttactttc tcttcattgt taagagtatg caaactcgag 110

```

<210> 531

<211> 257

<212> DNA

<213> Homo sapiens

<400> 531

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gaattcgcg cgcgctcgac agacaacatc accctagccc aagacatcgc tattagagat 60
acatcacctg gacactaaag cctccacccc agtgacactc tcaagggtgt gacaaaatgg 120
acatggacat ttgttgcttt tcttcttttg aattaggaac tctatttgtt ttctgaatt 180
tactgtctgc ttggcccatg atcctgggtat gttccttgct ctctgccaaa acatgcaccg 240
tccccccac actcgag 257

```

<210> 532

<211> 195

<212> DNA

<213> Homo sapiens

<400> 532

```

gaattcgcg cgcgctcgac tgtattcttg gtcactttct cttgcatagc tatectcatt 60
ccagtatgtt tcatgggctg cctaagaata ctgaacatac tgacttggtg agtcattggc 120
tcctattcgg ttgttttagc cattgacagt tactgggtcca caagccttcc ctacatcact 180
tcgaacgtac tcgag 195

```

<210> 533

<211> 197

<212> DNA

<213> Homo sapiens

<400> 533

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gaattcgcg cgcgctcgac gttttattta tttgcttttt ttctggctcc tgagtggcaa 60
acaaaggaat tttttatgct ggagatactt tgtattattg atctaagttt aatatcttga 120
cctgtttgat ctgagagtct gttatagata tgtatctatt ttcttctctt ccttctctcc 180
cctccttctt tctcgag 197

```

<210> 534

<211> 225

<212> DNA

<213> Homo sapiens

<400> 534

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gaattcgcg cgcgctcgac ctttaaccag cctcatttaa gttaatcacc tctttaaatg 60
ctcaatctcc aagtacagtc tcattctgag gttccagggg tttctcaacg taagaattta 120
gggggacaga attcageccg tagcagctgg gcagcaggac tcatgggtcc cagttctcag 180

```

gcccccaagga ctcagagcag caaaggatac gtgacagatc tcgag

225

<210> 535

<211> 177

<212> DNA

<213> Homo sapiens

<400> 535

gaattcgagg cgcgctcgac attctagacc agcctcacca gatggaagtt tatgcttatt 60
ttcttatttc acttggtgt catggatctc atttcttctt tctgtctcat cctctactat 120
tcaccctct ccatagaccc atccctccct tggctattgg aacaactcaa gctcgag 177

<210> 536

<211> 403

<212> DNA

<213> Homo sapiens

<400> 536

gaattcgagg cgcgctcgac cctggagctt aaaaagctgc acgcaagtgt taaacttctg 60
acaattggcca agaacaaatt aagagggccg aagtccagga atgtatttca catagccagc 120
caaaaaaact ttaaggctaa aaacaaagca aaaccagtta ccactaatct taagaagata 180
aacattatga atgaggaaaa agttaacaga gtaaataaag cttttgtaaa tgtacaaaag 240
gaacttgac atttcgcaaa aagcatttca cttgaacctc tgcagaaaaga actgattcct 300
cagcagcgtc atgaaagcaa accagttaat gttgatgaag ctacaagatt aatggctctg 360
ttgtaataata ctggtgatgc atctaattct ccacacactc gag 403

<210> 537

<211> 247

<212> DNA

<213> Homo sapiens

<400> 537

gaattcagaa cttttcagct ggggaacgag agtaccagtg agtacagctt tacgaggtaa 60
gtctgatctt gaactttcta aggaaattca agacagtcta tcagaagtaa agtgggaatat 120
gtttggcctt gaatttttct tagtgtaga agcccttttg ttctttttca catgttatca 180
agtgggtaag gcaggggcga ttctagatga aattcaggac aatctatcag aagtaaaggc 240
actcgag 247

<210> 538

<211> 396

<212> DNA

<213> Homo sapiens

<400> 538

gaattcagcc aaagaggcct aaaaaggag aagaagaaa agaaacctgc tgttggcgta 60
tttgggatgt ttcgctatgc agattggctg gacaagctgt gcatgattct gggaaactctc 120
gctgctatta tccatggaac attacttccc ctcttgatgc tgggtgttgg aaacatgaca 180
gatagtttta caaaagcaga agccagtatt ctgccaagca ttactaatca aagtggaccc 240
aacagtactc tgatcatcag caacagcagt ctggaggaag agatggccat atacgcctac 300
tattacaccg ggattggtgc tgggtgtgctc atagtgtcct acatccaggt ttcactttgg 360
tgcttggcag ctggaagaca gatacacagg ctcgag 396

<210> 539

<211> 342

<212> DNA

<213> Homo sapiens

<400> 539

gaattcggcc aaagaggcct acttgatgc tagtccttgc ctggtaattg tggattaatg 60
tcagcgtaa tcagccctc aaaggagag aaaagctggg cttttccctt gctgtacctc 120

attcagcttt tgatttccat ggccccacca tttatgtgca agatttgcaa tggttgtcag 180
 ctctctctga agaccgagct tgacgcctcc atgccagctg ccggttggaac gcaaagccaa 240
 gcaagggtca ggagggaagc tgccccggct gactggagaa tgggaacccc aggactctcc 300
 actcatctcg aagggttgtg gtccccccag gaaagtctcg ag 342

<210> 540

<211> 249

<212> DNA

<213> Homo sapiens

<400> 540

gaattcggcc aaagaggcct atggtagctg ttcggtagat gctctttgct atttataagt 60
 gacttttaaac ctctctcttg ctgttaagaa atgtgttcta gatttagcta tttattgttt 120
 gcggcctgca tgctgaaaca gtgcttacgt tgtctccatg tgtacggggc ctgtgtggat 180
 ggtcgtatgt tttgcacatt ttgtagtgtg tgggtgtgctt cgccgcacac aaaaaaagag 240
 tacctcgag 249

<210> 541

<211> 230

<212> DNA

<213> Homo sapiens

<400> 541

gaattcggcc aaagaggcct acagagaccg tggacaacaa aatgatgggt tctatctgtg 60
 aacagaagct gcagcacttc agtgctgtct tctgtctcat cctctgcttg ggaatgatgt 120
 cagctgtccc acccctgat ccaagtttgg ataatgagtg gaaagaatgg aagacgaaat 180
 ttgcaaaagc ctacaactct aatgaagaaa gacacaggag acatctcgag 230

<210> 542

<211> 365

<212> DNA

<213> Homo sapiens

<400> 542

gaattcggct aaagaggcct accaactgca gcctccgagc agagaacctg gtccacgtcc 60
 acttcaaaga ggagattggc attgctaagc tcatcccgct cgtgaccacc tacatcatcc 120
 tgtttgctta catctacttc tccacacgca agatcgacat ggtcaagtcc aagtggggcc 180
 tcgcccctggc agccgtggtc acagtactta gctcactgct catgtctgtg gggctctgca 240
 ccctcttcgg cctgacgccc acactcaatg gcggtgagat ctcccatac ctgggtggctg 300
 ttattgggct agagaacgtg ttggtgctca ccaagtcagt ggtatcaact ccagtggacc 360
 tcgag 365

<210> 543

<211> 366

<212> DNA

<213> Homo sapiens

<400> 543

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 cgaggactgt tctgatacct gacaatgctg aacttgtctc aggttcctag tataatgggt 120
 gagcagagat gggctattct ctcaactttc cctaaaccaa tgccagtteg ccatgatgct 180
 atagtttttc caaaattcgt tactactgat aaaacagtgg atttgccata tttaccctat 240
 gateccaccc gagcaccatt aggagaaaat cgctctttac tagaacaggg ttctttatgt 300
 tttcaaatta atggaccagg aaattgtatc aacctcacag cccgagcttt ggggggtgag 360
 ctcgag 366

<210> 544

<211> 365

<212> DNA

<213> Homo sapiens

<400> 544
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 tttttttctt tcttgtagca tctgcatctc taatggatac tgaggggttt ggtgagctcc 120
 ttcagcaagc tgaacagctt gctgctgaga ctgaaggcat ctctgagctt ccaatgtag 180
 aacgaaattt acaggagatc cagcaagctg gtgagcgctt gcgttccctg accctcacac 240
 gcacatccca ggagacagca gatgtcaagg catcagttct tctcgggtca aggggacttg 300
 acatatccca tatctccag agactggaga gtctgagcgc agccaccact tttgaacctc 360
 tcgag 365

<210> 545
 <211> 475
 <212> DNA
 <213> Homo sapiens

<400> 545
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 gctgtgtaca ctgctggcgg cggcgggtccc cactgctcct gctccttccc cgacgggtcac 120
 ttggactccg gcggagcccg gccagctctt caactaccct caggaggaag ctacgctcaa 180
 tgagatgttt cgagaggttg aggagctgat ggaagacact cagcacaac tgcgcagtgc 240
 cgtggaggag atggaggcgg aagaagcagc tgctaaaacg tcctctgagg tgaacctggc 300
 aagcttagct cccaactatc acaatgagac cagcacggag accaggggtg gaaataaacac 360
 agtccatgtg caccaggaag ttcacaagat aaccaacaac cagagtggac aggtggtctt 420
 ttctgagaca gtcattacat ctgtagggga tgaagaaggc aagaggaacc tcgag 475

<210> 546
 <211> 436
 <212> DNA
 <213> Homo sapiens

<400> 546
 gaattcggcc aaagaggcct acaacgtcta aattatgtgc cactcgcgca accatctcca 60
 caccatgact ggcctgaggg ccccttctcc agctccctcc accggcccgg aactccggcg 120
 gggctctggt cccgaaattt tcaccttcca cctctctccg gagcgggccc tgggtgtccac 180
 cgcgcgtttg aacacttctc gcgggcaccg aaaacgcagc cgaagggtgc tctacccccg 240
 agtgggtccg cgccagctac caaccgagga acccaacatt gccaaagggt tcctctttct 300
 cctgttcgcc atcatcttct gccagatttt gatggctgaa gaggggtgtg cgcagccctc 360
 ggctccggag gatgctacca gcgcctgac acctgagccc atttctgcgc ccattactgc 420
 gccccggtc ctcgag 436

<210> 547
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 547
 gaattcggcc aaagaggcct acgcatccac tgccgtccgg tcagacacgc tgaaggctgc 60
 gctctgtcga agactttgga tgtgtcgtgc attctcttgc actttctcca gcagctggcg 120
 cacctgcggc cagtagttag ccactttgca ctcccggaga aaagatttca gctgtagaac 180
 agtaggcaac accaactctg ggaaagcgat ggtgtgggcc tggctgcgca ggtattccag 240
 agtaaggcca cacagctgtt ccagcagccc gtcccggtae gccttctcct gcagggtggg 300
 gctggacagc ttcaagatca cagagaagtt gatgggcttg gagctcatgc gacctggccg 360
 cctattgaag tccacctgct ggaaaatctc gag 393

<210> 548
 <211> 447
 <212> DNA
 <213> Homo sapiens

<400> 548
 gaattcggcc aaagaggcct agctgggttaa tcaactcata gatcttgtcc agatacaact 60

```

agatgtatta tgacaaataa ctcagcaggg atgtgaacaa aagtttccgg gatttgtgtgt 120
tatttccatt cagtatgtta aatttactag ggcagcta atgtcaaaaa gtctttttca 180
gtatatgtta cagaattgga tgactgaatt tgaacagacc cttcgaggct tgccatcatt 240
caggtcaact ccacgcgctt ggacctgtcc ctgaccaaag gattacccaa ttggatctcc 300
tcagcatttt ctttctttaa aaaatgggtg ggattaatat tatttgaga tacactttgc 360
tgtggattag tgttgcttct ttgattggc tgtaagctta aggcctaac taggagagac 420
aagggtggtta ttgcacaggc actcgag 447

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<210> 549

<211> 313

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (220)

<400> 549

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gaattcggcc aaagaggcct aaagaaaggg ggtcgcagaa atggctgggg caattataga 60
aaacatgagt accaagaagc tctgcattgt tggagggatt cttctggttt tccaaatcgt 120
tgctttcttg gtggaggcct tgatcgctcc agcaccaca acagcagtac cctacacggc 180
aataaaaatgt gtggatgtcc gtaagaacca ccataaaacn agatggctgg cgcttgggg 240
acctaacaag tgtgacaaga tccgtgacat cgaggaagca attccaaggg aaattgaagc 300
aatgagctc gag 313

```

<210> 550

<211> 392

<212> DNA

<213> Homo sapiens

<400> 550

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gaattcagcc aaagaggcct agaggaaatc tttaagacat ggctggagct aaggcgtacc 60
gacttggagc agttctgctt cttatccact taattttcct catctctgga gccgaagcag 120
cttccttcca gcgaaccag ctgcttcaga aagaaccaga cctcagattg gagaatgtcc 180
aaaagtttcc tagtccagaa atgatcaggg ctttggagta catagaaaag ctgaggcagc 240
aagctcacag agaagaaagc agcccagact acaatcccta ccaaggcgtc tctgttcctc 300
ttcaactcaa agaaaacgga gaagaaagcc acttggcagg gagctcaagg gatgcactga 360
gtgaagacga gtggatgcgg ataatactcg ag 392

```

<210> 551

<211> 419

<212> DNA

<213> Homo sapiens

<400> 551

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gaattcggcc aaagaggcct atgagcttat agcttccaag ggccccctt ggctattttc 60
ttcctccatc agtcaagtgt ttaattcagt gtaacctacc agtctgtcct gggttgcatg 120
tctagcatatc gtggagggtc tttttcactt tcttgacct catgtctgtc tctcttgagt 180
ctttgttttt atagcaggaa gttagtattg ggggcttgaa tgatgcaggg caccaacaga 240
accattgcag gactgaaatc cccagactac cgataccttg gtggtcggtt ctcagcttca 300
ctaagaaagc agaacggctg cttatgctga agcctctgtg acagtcaagg gggtcacac 360
ctacattatt gctgccaggg gtcacagccc tgacctttgc cttccagact tttctcgag 419

```

<210> 552

<211> 223

<212> DNA

<213> Homo sapiens

<400> 552

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gaattcggcc aaactcttta tctgttttgt taaaacatta taattttcct aggtgaggaa 60

```

aatgttaggg aaattgagag tgaaggacgg ttctctggcag gtcaggggggt ttatttttat 120
 ttttatctat ttttttttat tgtttctcct tagctgctgt ctgttcagtt ttgagactct 180
 tcagtttcta gctttatatt catacaaagg cgttgcgctc gag 223

<210> 553

<211> 289

<212> DNA

<213> Homo sapiens

<400> 553

gaattcggcc aacatgacga agttaacaca gtggctttgg ggactggctc tcctgggctc 60
 tgcctgggct gccctgacca tgggagcact gggcttggag ttgcctttcc cctgccgaga 120
 ggtctgttgg ccactgcctg cctacctgtt ggtctccgct ggctgctatg ccctgggcac 180
 ggtgggctat cgcgtagcta cattccacga ctgcgaggac gctgcccag agctgcagag 240
 ccagatcgtg gaggcccag ctgatttagc acgcaggggc attctcgag 289

<210> 554

<211> 331

<212> DNA

<213> Homo sapiens

<400> 554

gaattcggcc aaagaggcct agttttctcg ctatattcca ggctctacag tgtgttttcc 60
 tcagtttga agtttttcag tgtttctcat catattccag gacatacatt tttcaagtca 120
 atttttccac gttattcagt tttctccaca cattccaggt catagagtgt ttgtgtctct 180
 tttccatgtt tttcagtttc ctcccataat ccagggtacta cagtgtgttt tttttcattt 240
 atctcggtat ataccatttt ttaccataat ccagggtccta ctcttggtgt tctcattttc 300
 catgatttta cattttcatg ccttactcga g 331

<210> 555

<211> 391

<212> DNA

<213> Homo sapiens

<400> 555

gaattctgcc aaagaggcct accagcaccc ggtgccaggg gccatggagc cccgggcagt 60
 tgcggatgcc ttggagaccg gagaggaaga tgcggtgaca gaagctctgc ggtcgttcaa 120
 ccgggagcat tctcagagct tcaccttcga tgatgccag caggaggaca ggaagagact 180
 cgcaaagcta ctggtctccg tcctggagca gggcttgtca ccaaagcacc gtgtcacctg 240
 gctgcagact atccgaatcc tatcccagga ccgcagctgc ctggactcat ttgccagccg 300
 ccagagctta catgcactag cctgctatgc tgacattacc gtctcagagg aacctatccc 360
 acagtcccca gacatggatg tcctctcga g 391

<210> 556

<211> 480

<212> DNA

<213> Homo sapiens

<400> 556

gaattcggcc aaagaggcct aagacgatca gataccgtcg tagttccgac cataaacgat 60
 gccgactggc gatggtggca aaggcaattg aggaggattc tgaatgatgc ggcccatttc 120
 tacacctcca aaaatcacct gtccaggatt ggagtaccga ctggagactg ggtactgggt 180
 agcagcatca cctgcatgct ctgctgaccc tacagctgtt gtctgattgg ttaagacatc 240
 caactgcaca ttttgattgg ccagcaggga ctgcaccagc cctatgctct ggggtgggaga 300
 cagagcttga gcagagctgt ggattggtgc aatagggatg ttcactgtac agggcggggt 360
 gttttcaggg acacctgatg ctctgtgaac tggtaagtca tcctcatctt cactgaaaac 420
 gtttggttg aagacaggca ggttaataata gtccatggaa atcttcctaa ctctctcgag 480

<210> 557

<211> 406

<212> DNA

<213> Homo sapiens

<400> 557

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gaattcggcc aaagaggcct agatgaagaa agcacacgtg tttgggatca cgttctcctt 60
caccaggcc atgatgtatt tttcttatgc tgcttggttc cggttcgggtg cctacttggt 120
ggcacaacaa ctcatgactt ttgaaaatgt tatgttggtt tttctcgtg ttgtctttgg 180
tgccatggca gctgggaata ctagttcatt tgctcctgac tatgcgaaag ccaaagtatc 240
agcatctcat atcatcagga tcattgagaa aacccttgag attgacagct acagcacaga 300
gggcttgaag cctactctgt tagaaggaaa tgtaaaattt aatgaagtc agtttaacta 360
tcccaccga cccaacatcc cagtgcctca ggggctgagc ctcgag 406

```

<210> 558

<211> 337

<212> DNA

<213> Homo sapiens

<400> 558

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gaattcggcc aaagaggcct atctgaatat gcgttggttg gcagctcggg tcaactataa 60
gactttgatt atcatctgtg cgctattcac tttggtcaca gtacttttgt ggaataagtg 120
ttccagcgac aaagcaatcc agtttctctg gcacttgagt agtggattca gagtggatgg 180
attagaaaaa agatcagcag catctgaaag taaccactat gccaaccaca tagccaaaca 240
gcagtcagaa gaggcatttc ctcaggaaca acagaaggca cccctgttg ttgggggctt 300
caatagcaac gggggaagca aggtgttttg gctcgag 337

```

<210> 559

<211> 374

<212> DNA

<213> Homo sapiens

<400> 559

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gaattcggcc aaagaggcct acctcaacgc caccaccgcc tctcactcc atggccatga 60
gagccgcctg cctcttctctg ctgttcatgc ctggcctgct ggctcagggc caatatgacc 120
tggtatctct cccccattc cgggaccatg tccagtacaa ccactatggc gaccagattg 180
acaacgcaga ctactatgac taccaagaag tgagtcctcg gacccctgaa gagcagttcc 240
agtcccagca gcaagttcaa caggaagtca tcccagcccc taccagagag ccagcagctg 300
caggggacct ggagactgag cctaccgagc ctggcctct tgactgccgc gaagaacagt 360
accattact cgag 374

```

<210> 560

<211> 285

<212> DNA

<213> Homo sapiens

<400> 560

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gaattcggcc aaagaggcct agccgctgcc gtcgccatga cccgcggtaa ccagcgagag 60
ctcgcccgcc agaagaacat gaagaggcag agcgactcgg ttaaggaaag cgccgagatg 120
atgggttttc tgctgccgcc cgcaagcaga gggactcggg gatcatgcag cagaagcaga 180
aaaaggcaaa cgagaagaag gaggaacca agtagccttg tggtctcgtg tccaaccctc 240
ttgccctcct cctgtgtgcc tggagccagt cccaccatgc tcgag 285

```

<210> 561

<211> 425

<212> DNA

<213> Homo sapiens

<400> 561

```

gaattcgggc aaagaggcct acgaggagaa tggagaccaa acctgtgata acctgtctca 60
aaacctcct catcatctac tcttctgtct tctggatcac tggggtgac ctgttgccg 120
ttggagtctg gggaaagctg actttgggaa cctatatctc cctgattgct gagaactcca 180

```



```

caaatgctcc ctatgtgctc attggaaccg gcaccaccat cgtgggtttt ggctctcttg 240
gatgctttgc tacatgccgt ggtagtccat ggatgctgaa actgtatgcc atgttcctgt 300
ccctgggtgtt cctggctgag cttgttgctg gcatttctgg atttgtgttt cgtcatgaga 360
tcaaggacac cttcctgagg acttacacgg atgccatgca ggactacaat ggcaacgaac 420
tcgag 425

```

<210> 562

<211> 238

<212> DNA

<213> Homo sapiens

<400> 562

```

gaattcttca gctgaggaac ggtggtacca ggtgaagaaa atccactttg ggtcccgcac 60
cgactgacaa ggaccgtgaa agagcaagat gaaccccaag atgattctcc tgctcctgat 120
gattgagaca gggataagta tacctttgtg ggccatagta agatcatggc cagtaccttt 180
accggtacat tccaattctt ctaccttgcc tttatttttt gcaacagaaa ctctcgag 238

```

<210> 563

<211> 359

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (203)

<400> 563

```

gaattcggcc aaagaggcct agtttgagca cttcagcctc ttttttgtct gcgtgtttca 60
gatcaacgtc ttcttctaca cagttccatt agccatcaaa ttaaaggagc atcccatctt 120
cttcatgttc attcagattg ccatcatctc tatcttcaag tctatccaa ctgtggggga 180
tgtggccctc tacatggctt tcnttccctg tgtggaacca tctctacaga ttctgcgga 240
acatcttcgt cctcacctgc atcatcatcg tctgtctctt ttcttccctg tgtggaacca 300
tctctacaga ttctgcgga acatcttcgt cctcacgggc atcatcatcg tccctcgag 359

```

<210> 564

<211> 399

<212> DNA

<213> Homo sapiens

<400> 564

```

gaattcggcc aaagaggcct agctttggct tggaccgagc ggggcagcgt cccgggctcc 60
cgagtgtctc ccatggcgga tacgaccccg aacggccccc aaggggcggg cgctgtgcaa 120
ttcatgatga ccaataaatt ggacacagca atgtggcttt ctgcctgtt cacagtttat 180
tgctccgctc tgttcgttct gcctcttctt gggttgcatg aagcagcgag cttttaccag 240
cgtgctttgc tggccaatgc tctgaccagc gctctgaggc tgcacagag attacctcac 300
ttccagttga gcagagtgtt cctggctcag gccttggttag aggacagctg ccaactacctg 360
ctgtattcac tcatcttcgt caactcctac cccctcgag 399

```

<210> 565

<211> 373

<212> DNA

<213> Homo sapiens

<400> 565

```

gaattcggcc aaagaggcct aggcgacaag agtctggagg tggcggtatg gaatcccat 60
aagtgatgat tgggagttag ccgagtctct ttgaccaggc tagagcgcca gcgtcctct 120
gaaccggcac actttggcaa agttgcaatg gcctgtttgc ttaggcaactg aagtggatga 180
tggttaggat gacaacttgc agagaacgcg gatgagacct tcagtttgtg cccacactca 240
tttcagcaa ccctaacaga gattgtgaag attttcaaag tggggcacct cgatttctcg 300
aatctgtggt gtggcgaata tccgtgttcc tcctgcttaa ctagcctgtt tgaaggcaca 360

```

gttcattctc gag

373

<210> 566

<211> 133

<212> DNA

<213> Homo sapiens

<400> 566

gaattcgcgg ccgcgtcgac gcctcactca attcatgctt ttctctccag cagtgatgaa 60
 ctgctgggct ctgactaaac acttgatggt atttcaagct gttgaccttt gtcattttct 120
 caacctctc gag 133

<210> 567

<211> 281

<212> DNA

<213> Homo sapiens

<400> 567

gaattcggcc aaagaggcct acttttcccc actgcaaaac caggtcgcgc ttccctcgtg 60
 ctcatctacc tatagtgtat ctgagggtata ttttgacagt gttttcttac atggtaata 120
 acatgctcgc cctcaccatt ttctcattt tattttcctt tcgccttaat ttattttgce 180
 ttgcactttg cacttgccctg aaagggatga ggataccaaa gggggaaaat tcacctgttt 240
 tagggggaaa ttctctatt tttatgaatg gtgcactcga g 281

<210> 568

<211> 624

<212> DNA

<213> Homo sapiens

<400> 568

gaattcggcc aaagaggcct acctcccggc tgctgcggtt gccctggatc cagtcggctg 60
 caccaggcga gcgagacct cccctggttg aggtcagag ttccggcagg gtgcatecgg 120
 cctgtgtgtg gcgcgaggca gggaaagcgg taccggggtc ctggccccag cgtgacgtt 180
 ttctctcccc ttctctctct cttcggggtt gcggcgctgc agacgctagt gtgagcccc 240
 atggcagata cgaccccgaa cggcccccaa ggggcgggcg ctgtgcaatt catgatgacc 300
 aataaactgg acacggcaat gtggctttct cgttgttca cagtttactg ctctgctctg 360
 tttgttctgc ctctctcttg gttgcatgaa gcagcaagct ttaccacag tgctttgctg 420
 gcaaatgctc ttaccagtgc tctgaggctg catcaaagat taccacactt ccagttaagc 480
 agagcattcc tggcccaggc tttgttagag gacagctgcc actacctgtt gtattcactc 540
 atctttgtaa attcctatcc agttacaatg agtatcttcc cagtcttgtt attctctttg 600
 cttcatgctg ccacagcact cgag 624

<210> 569

<211> 467

<212> DNA

<213> Homo sapiens

<400> 569

gaattcgcgg ccgcgtcgac gtgctgggac atgagatgta ttctcttctt tgttcctcac 60
 tctatctctg tgggtggaaa aaattactcc cattctatag aagagagacc agaacctccg 120
 agaggacaag caactttctt agggggcaca gctaggaggg taggctgaat aatgatcccc 180
 ctaaaatgtc cacattctaa tcccaaaaac ttatttaaaa agggactttg caggggtgac 240
 tgagttaagg atcctcagat gaggaggctt tcatggattg tttgggtggg cccaatgtaa 300
 tccaaggatc ctttcaagag caaggcagga gggccagagt cagagaaaca gacacgacaa 360
 tggaagcaga ggttggggtg atactggagt gggaggggccc accagccaag gaatgcaggc 420
 agcctctagg agctggaaaa ggcaagaaag catgttctct cctcgag 467

<210> 570

<211> 269

<212> DNA

<213> Homo sapiens

<400> 570

```
gaattcgcgg ccgcgtcgac gctgggggaa aaaagaaact aaatcaaata aaaataaatt 60
ttcaaatttc atcaacaagt ggtacattca gtataaaact acaaatgccc atatagatta 120
ttacaaaggt acataccaat caagaactag gcatcacatc caggaactgt gcatacatac 180
taaatcattc attacagatt ttacttttat tgtgaagtat attcaataaa atataagtga 240
cagaaatgag aaaatccaca gtccctcgag 269
```

<210> 571

<211> 208

<212> DNA

<213> Homo sapiens

<400> 571

```
gaattcgcgg ccgcgtcgac ataaaaagta tagtaaatac ataaaccaat aacatagtca 60
cttattatca ttatcacata ttatgtactg tgcactgttg tacgtgctgt acctttatac 120
agctggcagc acgggtttgt ttgcaccagc atccccacaa acatatgagg aacatgtaca 180
tcttaccacg gttgcaactt cactcgag 208
```

<210> 572

<211> 178

<212> DNA

<213> Homo sapiens

<400> 572

```
gaattcgcgg ccgcgtcgac tccctactga agatagcttt gcttgaatga gcttgccctgc 60
agtgcggaatg ctggggctta ttgtgttgac ggccgcagtcg ccatgggtgc tgcgtccctga 120
ggacatgggtt acttccctga ctatctgtca tgcctcactg gtaccccgtg gctcgcag 178
```

<210> 573

<211> 172

<212> DNA

<213> Homo sapiens

<400> 573

```
gaattcgcgg ccgcgtcgac tgccagagag tttatagtag ttgaatatgg attatgaaca 60
gttactttta tttttaattt tttgggggac ggaatcttgc tctgtcaccc aggctggagt 120
gcagtgtgac gatctcagct cactgcagcc tctgcctcct gggttcctcg ag 172
```

<210> 574

<211> 183

<212> DNA

<213> Homo sapiens

<400> 574

```
gaattcgcgg ccgcgtcgac tgcttttggg ggacagagtg aatttctccc aaattactgt 60
cttctgcctc cttaaatcagg accacatttt tcaggtgtgc ttatttgggg aacgaggcct 120
ggctctgtgtt ccgctgtatt gctgatgaag ctaaaaatta agggattaat ggcacccctc 180
gag 183
```

<210> 575

<211> 224

<212> DNA

<213> Homo sapiens

<400> 575

```
gaattcgcgg ccgcgtcgac cctttttcag tattgtttca ggaaatggta ttgtttgttt 60
ttattttact ttttactgtt tcctgggtac atgaccaatg tcatttgact ggtgagtaca 120
ttgagctagc agcttttagg aaatttcatt gtgatctaga gatgcatgac agtccctgc 180
```

actggcagcc tactttacaa ctaccatctg agaagggact cgag

224

<210> 576

<211> 249

<212> DNA

<213> Homo sapiens

<400> 576

gaattcgcg cgcgctcgac cagaaaacca atgtttaaca ttcacagagg attttactgc 60
ttaacagcca tcttgcccca aatatgcatt tgttctcagt tctcagtgcc atctagtgtat 120
cacttcactg aggatcctgg ggctttccca gtagccacta atggggaacg atttccttgg 180
caggagctaa ggctccccag tgtggtcatt cctctccatt atgacctctt tgtccacccc 240
aatctcgag 249

<210> 577

<211> 251

<212> DNA

<213> Homo sapiens

<400> 577

gaattcgcg cgcgctcgac catcctttgg gaattcagtt cctgcttttc tttgtgaatt 60
tttccctatt cgtatcctgt ccatattcct aagcaatata taccgtaggt ttgcctgtat 120
ttaaaagtgg catcatgtcc ttacgttat tccagtttgc tttttgtta ctcagcatta 180
tatcttggga tacatccatg ttgatgcagg cagctgaggc tcatttactt tttcccact 240
gcaaactcga g 251

<210> 578

<211> 161

<212> DNA

<213> Homo sapiens

<400> 578

gaattcgcg cgcgctcgac agaggttgtt cgcgccttga gagttaagcg aagtgtggtg 60
gcttccaagg aatacaaaaca taaaggcctt cgaccgttgc aaatagacta aagtgaaaac 120
aaatctgaat gaagatgaag ttatttcaga cggttctcga g 161

<210> 579

<211> 173

<212> DNA

<213> Homo sapiens

<400> 579

gaattcgcg cgcgctcgac gcacgcactt catctgggccc tgcagtgaag aagtattcta 60
gttggagtgc tgcaaaccca gccttaatga tctttggcaa agcactttgt gtcagtgtcg 120
cttcagata cttctgtctc tcctcagcac tcaattcttg caactgcctc gag 173

<210> 580

<211> 160

<212> DNA

<213> Homo sapiens

<400> 580

gaattcgcg cgcgctcgac agatgcccat gaattcttaa attacctact aaatacaatt 60
gctgatattt tacaagaaga gagaaagcag gaaaaacaaa atgggtcgttt acctaatggt 120
aatattgata atgaaaataa taacagcaca cccactcgag 160

<210> 581

<211> 262

<212> DNA

<213> Homo sapiens

<400> 581
 gaattcgagg cgcgctcgac tgaattctag acctgcctcg agccgtgcta ttactttcac 60
 ctctttcatt gcttgtggaa aaacccttat ccagggaaga attaataact tcaacaatac 120
 tatcaaagga gggcctaaaa ttaaaaaaaa aaaagaaaca aaaaagttgt gaaacaacaa 180
 caacaacaat acttggcaaa ctcttgacag acttagggag aatattatga tattgaggct 240
 gctgttgact aaggcactcg ag 262

<210> 582
 <211> 175
 <212> DNA
 <213> Homo sapiens

<400> 582
 gaattcgagg cgcgctcgac ggattcttca ttactacatc tgaaaagctt ctcatctaga 60
 aggtatttat ctcaaaattc atttgtgtgt ttcaaacaga atttcacaaa attctgggtc 120
 ttaacaataa ataattgtga ttctaaacat cagaattgta acaggaatac tcgag 175

<210> 583
 <211> 179
 <212> DNA
 <213> Homo sapiens

<400> 583
 gaattcgagg cgcgctcgac gagatatctg tatttaaaaa aaaggttttt tttcctcaaa 60
 tgtgcaaaac agcacagggc agtttagggc tcttcatagc tatcttcatg tacacattta 120
 tttggtttac gagcactctt ctctctcagc ttttcccatc ccttatcgcc accctcgag 179

<210> 584
 <211> 242
 <212> DNA
 <213> Homo sapiens

<400> 584
 gaattcgagg cgcgctcgac aggagctgct gtggagaaag gtatactatg aagttatcca 60
 gcttatcaag actaacaaaa agcacatcca cagccggagc actttggaat gtgcctacag 120
 gacgcacctg gttgctggta ttggcttcca ccagcatctc ctctcttata tccagtccca 180
 ctaccagctg gaactgcagt gctgcatcga ctggaccat gtcactgacc cccatgctcg 240
 ag 242

<210> 585
 <211> 240
 <212> DNA
 <213> Homo sapiens

<400> 585
 gaattcgagg cgcgctcgac ccagaaaaga aaagatagtg atttaacaaa ctttctctgc 60
 tcacctacat tgtcttcatt catatttatt agaatgacca acatacttta ccattccttc 120
 aatcacttta atttcattat gtttggttaa ttttcttctt tgataaacca gttgtccctc 180
 agtatactcc agggattcat tccaggagca cctgtgtata ccataattca cacactcgag 240

<210> 586
 <211> 177
 <212> DNA
 <213> Homo sapiens

<400> 586
 gaattcgagg cgcgctcgac cactttcact gggccagaca gaaaacaaga aatctttttt 60
 gtgttggaac atcaaagagg catgctttta cagaaacttg ctttgcagat tcttcaccct 120
 gtgctggtca tgatactttc agctccatc caaggagggg taaaatacac tctcgag 177

<210> 587
<211> 147
<212> DNA
<213> Homo sapiens

<400> 587
gaattcgcg cgcgctcgac gatttttctg gggggaggat tggtttatgg aacgaattat 60
ttcttatttt tcatggcaac ctacaaattg acttcctttg ttctcatcac cgtctttggt 120
gttagaatat gttcagagag tctcgag 147

<210> 588
<211> 288
<212> DNA
<213> Homo sapiens

<400> 588
gaattcgcg cgcgctcgac accaaataga actgtaaaca gtttgtcaac taataagctg 60
aatttctggt tgaagtacag ttggaacagg ttatctccac atttgggtct ttacacctct 120
agcatagtgt gatttcttct ctctttttta aaaatccacc tccttctctc ctagcatagt 180
gtgatttctt taaatctttt ttatcctatg ctaaagtgtat gggttttttg tttgtttgtt 240
tggctcact ctgtcaccca ggctgaagtg ttcagtggcc gtctcgag 288

<210> 589
<211> 210
<212> DNA
<213> Homo sapiens

<400> 589
gaattcgcg cgcgctcgac ctctcatgat tggctctacc tctcaggact cccccatcc 60
ttaccattgt ttgttgatct ctggtgcagc caaatgaagc ccatcatgct tgcctctg 120
ctggaagctc ttccttccct ctctctggcc aatggctact gtcccttcag agcacctgtt 180
cagatgaaac ctccaccaag caccctcgag 210

<210> 590
<211> 229
<212> DNA
<213> Homo sapiens

<400> 590
gaattcgcg cgcgctcgac ccgggtagta ttccatcata tatatataat cagatatata 60
tacataatca gatatatata tatataatca gatatatata tatcagtttc tttatccact 120
catttgcaat tatttaattt ttaaataaaa cactttataa acacataaaa ttatgagatc 180
tctagttata tttctcatgc taagccactg tgcttaccce tgctcgag 229

<210> 591
<211> 152
<212> DNA
<213> Homo sapiens

<400> 591
gaattcgcg cgcgctcgac ctccattctt tcatgtgtag gtttaattatt gtggacccaa 60
tctgtgttct ggtaatggaa ttaatttga taacatcatt agggctgggc acagttgtc 120
atgcctataa tcccagcact gaaaagctcg ag 152

<210> 592
<211> 175
<212> DNA
<213> Homo sapiens

<400> 592

gaattcgcg cgcgctcgac caaagattcc tacccaatcg tgtacacact gtctctaate 60
 tcctctcttt gcttggcctg gacctgtgaa tatgataatc acgcccctga ctgctttact 120
 tagtatagga ctccatttta gcagaatgaa gagtgtttcc cctactgac tcgag 175

<210> 593

<211> 235

<212> DNA

<213> Homo sapiens

<400> 593

gaattcgcg cgcgctcgac tctgtattct aatgaatagt aatagctgac attaatgaga 60
 actgtatttc agacaccgtg ctaagttctt ttcattgtatt atctcattta atctttgtaa 120
 caaattgatg aggtgggtca tatttttatt tattttattta tgtttgagac agggctcttg 180
 tctgtctgct aggtctggagt gcaatggagc tatcactcct cactgcagcc tcgag 235

<210> 594

<211> 244

<212> DNA

<213> Homo sapiens

<400> 594

gaattcgcg cgcgctcgac aaatctatca gtgcagtata tataacaacct tgtcagacga 60
 gtagctgaca aaggaatctc cctagtacaa cttgtagcag tactattata aagaattcct 120
 gacttgacac attttgatga agttgggtga aataatttgt tgggtttgtt caatttttgg 180
 tgtcatttat ataaaaagaa taaagaagaa tgtgaatggt aggaagtcag gcgagatgct 240
 cgag 244

<210> 595

<211> 229

<212> DNA

<213> Homo sapiens

<400> 595

gaattcgcg cgcgctcgac tgatgggtct cctgtacccc agggcatggc cctgtatgca 60
 ccacctctc ccttgccaaa caatagccga cctctcacc ctggcactgt tgtttatggc 120
 ccacctctc ctggggcccc catgggtgat gggcctccac cccccaactt ctccatcccc 180
 ttcaccccta tgggtgtgct gcattgcaac gtcccagaac accctcgag 229

<210> 596

<211> 218

<212> DNA

<213> Homo sapiens

<400> 596

gaattcgcg cgcgctcgac gagaattgtt tttagcagag tttgtgacca aagtcagagt 60
 ggatcatggt ggtttggcag caggggaattt gtcttgttgg agcctgctct gtgtcccca 120
 ctccatttct ctgtccctct gcctgggcta tgggaagtgg ggatgcagat ggccaagctc 180
 ccacctggg tattcaaaaa cggcacacac aactcgag 218

<210> 597

<211> 153

<212> DNA

<213> Homo sapiens

<400> 597

gaattcgcg cgcgctcgac ttctagacct gcctcgagca aataaaaaac ccagttctaa 60
 atcataaaaa tagaagacc agttctagtc atgtggcatt catttatctt ttggggaatg 120
 tcctcctat gcctttgtag aacacaactc gag 153

<210> 598

<211> 194

<212> DNA

<213> Homo sapiens

<400> 598

```
gaattcgcg cgcgctcgac atttttccct gtttttggt aggtaatgaa gaaggaaaaa 60
aaaaatctca tccaaagatg caaagaaaca atctgctggc ccaggtcatt tccatgggat 120
ctttttgttt ctcttttctt tgttttgtaa gtacatgcat tttggctgaa aaagatacag 180
gcaccattct cgag 194
```

<210> 599

<211> 232

<212> DNA

<213> Homo sapiens

<400> 599

```
gaattcgcg cgcgctcgac cagaaaccca taaagatttc ttaaggatt tggatccgat 60
atctttctga attaggccct aaattattat gaatgtgaac ctagggtata tgtcttgctt 120
gtggatgtg tgctgcgata ctttgaagca gaatgatttg tggatcattt taccagtcct 180
ttctcttttt tggatcaaatg cagatggcat ggaggaaatg gaaagactcg ag 232
```

<210> 600

<211> 227

<212> DNA

<213> Homo sapiens

<400> 600

```
gaattcgcg cgcgctcgac cacaggtttt gaggaacag agagctaaaa gttggagtgt 60
ttattctatc cacttttttag actttgcaag agtgtgcatc cacaatcaca tatatatgga 120
tggaatcact gaatcttttt catctctat tcagaataca tctgcttctt gctttcacaa 180
tgtgcaattt tgcctttttt tgttgtgcag ctatgggaga actcgag 227
```

<210> 601

<211> 198

<212> DNA

<213> Homo sapiens

<400> 601

```
gaattcgcg cgcgctcgac tgaagaacgc cgaaagaagg aagaacaagt catacaggtt 60
taaatcttgt ttcaacttgt tgctagttat cttagattgt tgcccaaagt gtatcagcaa 120
atgttcaagg tttttatact tgtaaggct gttttcatta ttcacgtgtt aaaagtgaca 180
tcattcttccc aactcgag 198
```

<210> 602

<211> 233

<212> DNA

<213> Homo sapiens

<400> 602

```
gaattcgcg cgcgctcgac cagaatcaaa tataaggcta aaattattag tgcatacagt 60
gaaattgagc aaccgcgtgt gttagaaatt aaaagggtgag ttctgttatt caccaactgt 120
taatttagcc caaaaagtgc cgagaaggag ttgggagtgg actccaatct gttatgaaag 180
tgagacaaac attcttggtc cttctgatec ctttcagtag cagttctctc gag 233
```

<210> 603

<211> 119

<212> DNA

<213> Homo sapiens

<400> 603

```
gaattcgcg cgcgctcgac gattaattct agacctgcct cgagcgctat cttttcactt 60
```


cggggcacag ttttacacgt gataacaata gtatgctgat ttccaagggt ctcctata 119

<210> 604
 <211> 188
 <212> DNA
 <213> Homo sapiens

<400> 604
 gaattcgcgg ccgcgtcgac ggtccttga ggaataacct tacaaacgtt taaagacttt 60
 taattttaat ttttatttc tttccagctt tattgaagta taattgacaa ctgaaagact 120
 agttggtaat tgaaattagg actcattttt atagtcagac aatgttaata tttaggagga 180
 gtctcgag 188

<210> 605
 <211> 193
 <212> DNA
 <213> Homo sapiens

<400> 605
 gaattcgcgg ccgcgtcgac ccagtatgtc tcttctattg ttttactat gtctactttc 60
 gttccagatt acagagtttag actattccct cttttcttca tgctgtttgc agattaccaa 120
 agttccagag aacctgctac cttttgcagt gcagtgcaga aacctcactg tgtccaatac 180
 ccgaacactc gag 193

<210> 606
 <211> 173
 <212> DNA
 <213> Homo sapiens

<400> 606
 gaattcgcgg ccgcgtcgac ctggagtgc tgggtgtgtc ctccggaatg ctggtgccgg 60
 aactcgctat cctgtgtgtc tactgtgtg gggcactgac catgctgagt gaaacgcagc 120
 acaagctgct ggcgaggcgc ctggagtgc agaccctgtt ggggcccgtc gag 173

<210> 607
 <211> 310
 <212> DNA
 <213> Homo sapiens

<400> 607
 gaattcgcgg ccgcgtcgac cttttcacct tctaggagat cgactcacct tcttttctct 60
 acctttctat tgcattttaa ttttgttgac taaaatttta ctttctaaga gctcatcttg 120
 ttttctgatg gttttcttc ctctctctca atccaacca tccccctctc ttccctggca 180
 tcaactgctt tcccccttc ctttttctc ctctctctct ctctctctc cctctctct 240
 ctctctctc ctctctgtg ctctctctct cctctctct ccacctgcat cctgttcccc 300
 agccctcgag 310

<210> 608
 <211> 189
 <212> DNA
 <213> Homo sapiens

<400> 608
 gaattcgcgg ccgcgtcgac agaggcaata cagtaaaaat tacacggtag aaactgagtt 60
 accagtgcac accaaaactt gggtagggag aatataccta aagttgtcct tagaaggaaa 120
 attgtagttc tgtatatcaa catattaaag atgaaaataa aatttaaac aatagcacia 180
 agcctcgag 189

<210> 609
 <211> 188

<212> DNA

<213> Homo sapiens

<400> 609

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gaattcgcg cgcgctcgac gagttaagtg gcagaaccgg gattcaaact caagttctcc 60
ctaacatcct ggaagccaag ggaaaggagt aatgaaatat gaaagtgaga aacactgttg 120
gctgggcatg gtggctcctg cctataatct cagaactttg ggaggctgag gcaggcagat 180
cactcgag                                     188

```

<210> 610

<211> 202

<212> DNA

<213> Homo sapiens

<400> 610

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gaattcgcg cgcgctcgac cttctcttga ttctctttat cttcctcagc tattttctgt 60
ataatcctc cagatctatc ttctagttaa taaatcttct tcaaccatga ctaattttat 120
gttatacttg tccaagatgt ttttaatttc agtgacaata tttttcattt tgaaagttct 180
gttttttggc cagactctcg ag                                     202

```

<210> 611

<211> 166

<212> DNA

<213> Homo sapiens

<400> 611

```

gaattcgcg cgcgctcgac gattgatttt tcatagttg aatcatcctt tcgttttggg 60
tttattctgt taggtcatgt tgtgtaattc ctttttatat gttactggat ttagtttctt 120
agcgtttttt gaggattttt gcattcttaa ttgtaaggga ctcgag                                     166

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<210> 612

<211> 152

<212> DNA

<213> Homo sapiens

<400> 612

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gaattcgcg cgcgctcgac gaagatacta aaactacttt ttctcccaca ggataattgt 60
agacgtacat tcaaaataga agtaaattaa tggtaaatatt agttcttcta tttttaatta 120
atagattaaa cctttggacc acggcactcg ag                                     152

```

<210> 613

<211> 194

<212> DNA

<213> Homo sapiens

<400> 613

```

gaattcgcg cgcgctcgac tagtagtggt gcattgtggt ttttaatttc atttccttga 60
tgaccattga agttgagcac attttcatat ttatagatca cttcagtatc ctgttttggg 120
tagtgtctgc taaaatcttt tctccatttc tctattgggt tgtctttttt tctgttttaa 180
gcaacacact cgag                                     194

```

<210> 614

<211> 258

<212> DNA

<213> Homo sapiens

<400> 614

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gaattcgcg cgcgctcgac cttttagtaa aagtaaatat ttctgtctct ttttctgctt 60
tttattttcc tgctccagtc tgtgttattt attttctatt ttcttttaac ttgctttgga 120
tttaatttgc tgttttctaa tttctcaagg tagaagccca gatttttgat ttgagacctt 180

```

tcttttcctt ttttgaatat aagcatttga taatctgtgt tttcctttat gtactgcttt 240
tgctgtgtcc tgctcgag 258

<210> 615
<211> 188
<212> DNA
<213> Homo sapiens

<400> 615
gaattcgcgg ccgcgtcgac ccttctcgca acaagatgat cgtgagtcag ctgtcctata 60
acgccggtgc tctgacctgg ctgtcctcgcg ggagcctgtg cctgctgggg tgcatagcgg 120
gctgctgctt catcccttcc tgcgtggatg ccctgcagga cgtggaccat tactgtccca 180
tactcgag 188

<210> 616
<211> 149
<212> DNA
<213> Homo sapiens

<400> 616
gaattcgcgg ccgcgtcgac gtccattcat tgattcattg aatgattcat ttactcaata 60
agcatatatt tgggtccatc ttggcccagg cactatgctg ggcattagag aaatttgaca 120
gtgggttagg gcaaggccct gccctcgag 149

<210> 617
<211> 193
<212> DNA
<213> Homo sapiens

<400> 617
gaattcgcgg ccgcgtcgac aggatttaac ctatagagtt ctgattcttt ctcccttca 60
atttttatca agtatttaatt tgcccactgg atgatttatt ttagaattgg cctacttttt 120
tttttttttg gcttcagtgc ctgtgggcaa atgtaaattt gcagctgaat tagcaaacca 180
gggacgactc gag 193

<210> 618
<211> 233
<212> DNA
<213> Homo sapiens

<400> 618
gaattcgcgg ccgcgtcgac atctgtaagt ctctctttac ctcttctctt ctctctttct 60
gcctccctcc ttttctcttt agtttcccca gagtgttgcc gagctaaggt tcaatcagag 120
gactcttaga taccttaatt ttttttgctt ttatttttga agaaagggat catcgttccc 180
attaggacat gtatttaca tgtgttttct ttgtcttgct caccacactc gag 233

<210> 619
<211> 211
<212> DNA
<213> Homo sapiens

<400> 619
gaattcgcgg ccgcgtcgac caaagtgtgt tttcaaacat catataatgc tctgcctgga 60
aggagttcta ataaataact tctccctca ctttacatca ccagtgatgt ttttaaagtc 120
ctttatagat tgggtgcctg ggtattgcct agctgacct tccctaact tccccgcggc 180
gccccaccg ccaccaaca caactcga g 211

<210> 620
<211> 187
<212> DNA

<213> Homo sapiens

<400> 620

gaattcgcg cgcgctcgac ttttggtgct gttagtatcg tcgcaacagc aaagagttaa 60
ataacattta ttttctagtg tattgcagta atcattcttc ttttttttaa atttctaagc 120
tgttttatta aatgaaaaga gaacaatgct aagcagcttg tatggtgtgt gtgtgtgtgt 180
gctcgag 187

<210> 621

<211> 170

<212> DNA

<213> Homo sapiens

<400> 621

gaattcgcg cgcgctcgac gttgattatc aaattgtttt tgagtgagtt ttggtagttt 60
gtgtctttta aggaattggt ccattttttt ttttaattgt caaatttggg ggcataaagt 120
tatttatgct gttacettac tatcttttta atatccgta tggctcagag 170

<210> 622

<211> 247

<212> DNA

<213> Homo sapiens

<400> 622

gaattcgcg cgcgctcgac gttttaaaaa attctgttta atatctgctt agttggctgg 60
ctgcctttgt gttttcccta ctagattgta agctcctaga ggacaaatta cagagcttat 120
ttattggtgg ttaatttaa atacattttt ttctctacag attagtgcac accagtctgc 180
acagatgcga gttatatctg taaacttgct tggatttttg gtttacatac actatcatac 240
tctcgag 247

<210> 623

<211> 244

<212> DNA

<213> Homo sapiens

<400> 623

gaattcgcg cgcgctcgac gattagcaga ataacatcgg atcaaaactg tctagcctgc 60
agttcccctt aattttgtat tataaaaaga aaactaaaca gagaaaactt taaaagacaa 120
tataatgata ccacgtagat tccagtactt gttacagtt tgccatattt gttctgctgc 180
tgtgtctttt cggaaccatt tgaaaattgt agatatgaca tttcacccca acaccagct 240
cgag 244

<210> 624

<211> 135

<212> DNA

<213> Homo sapiens

<400> 624

gaattcgcg cgcgctcgac cgcattttac caacctatatt cctttttaac tctacaaatg 60
gtgcagataa tccgaacact tatagtctat ttattgtttc caccctccca ctctgcacat 120
gactgttatc tcgag 135

<210> 625

<211> 140

<212> DNA

<213> Homo sapiens

<400> 625

gaattcgcg cgcgctcgac ataaaaacag cattgtagta cttactaca gctttgtggg 60
atattttgaa gtctggtagt gtgatgcttc cagctttgtt ctttttgctt aggatcgctt 120

gtctcttcag ggtcctcgag

140

<210> 626

<211> 249

<212> DNA

<213> Homo sapiens

<400> 626

gaattcgcg cgcgctcgac cctttattca gacctcact gctttgtacc tggactactg 60
 taacacctcc ctgtctgatt gaattctagtt catctgttac actgaggtga gattaaattt 120
 gctaaacaca gtaattttgt accactcttt agccccaat tacgtagtcc tcatagctgc 180
 taaaataaga acaactctt tagcttttcc aggtcttcca taataatgcc caaacatacc 240
 catctcgag 249

<210> 627

<211> 197

<212> DNA

<213> Homo sapiens

<400> 627

gaattcgcg cgcgctcgac ttctaaacat ttgtctgtga agtgttttaa tattttagt 60
 ccacaacatt gatcaagttg gaattcttca ttatcttgaa cagtttatcc aaaagtatat 120
 ttttcgtatt ttcatctgct agcttttctt tgttattttt tgtgagactg aataactctta 180
 aaaaggccga gctcgag 197

<210> 628

<211> 178

<212> DNA

<213> Homo sapiens

<400> 628

gaattcgcg cgcgctcgac gaagaatact gtgtattatc aaaatggtaa cattgtgttt 60
 ccttctgaaa cttgtttctt ttcatctcgc attactgttg acatctatcc ttactgatac 120
 tttcaagttt gtttcttttg cttatgggat tctactaatt aatccaccac atctcgag 178

<210> 629

<211> 273

<212> DNA

<213> Homo sapiens

<400> 629

gaattcgcg cgcgctcgac aacactcctt atgacaagct gccacaaggc aagggcata 60
 gatctcttta gtcaaggcaa gtttctcagc ctgtatactg attatgtttt gggctggata 120
 attatttgtt gttggggctg tctgtgtat tgcagcgtcc tgggcctttg cccactagat 180
 gccaatagca tccctttccc caatgtggca accagaaatt accaaatgtt acctgagagc 240
 aaatcctctt ttacttctcc catcctctc gag 273

<210> 630

<211> 216

<212> DNA

<213> Homo sapiens

<400> 630

gaattcgcg cgcgctcgac gtattatcaa atcattttgt gaaatcacct cattttaaga 60
 tttttaaatc taatgagtgt gagtaaaata catactaagt ttgctgtgaa tttagtatgt 120
 cttttctttt tctttaagtt tgtgccattg gattattctg ttctataga aatccccact 180
 ataaaatgta aaccagacaa acttccattt ctcgag 216

<210> 631

<211> 168

<212> DNA

<213> Homo sapiens

<400> 631

```

gaattcgcg cgcgctcgac gttctataaa gataaatccc ttctectgcc attttatttt 60
attatatttg catagggttt ttttaattca atgttttata atccattgca gttctttttg 120
atgctcccat tgtcacagat ttggctggta gtagtctccc cactcgag 168

```

<210> 632

<211> 193

<212> DNA

<213> Homo sapiens

<400> 632

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gaattcgcg cgcgctcgac cagtttgatt tttagctcaa attgttggtt aaaataaatt 60
atgaatttga acgtattcag ctatgggttt cctttttatc tgcctaaaaa gtgccttagc 120
tacaatagtt tttctctctg tactcttcac tgtaattttt ttttatgaag gaaaatcgct 180
ggaggggactc gag 193

```

<210> 633

<211> 211

<212> DNA

<213> Homo sapiens

<400> 633

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gaattcgcg cgcgctcgac gaaatataaa aactatgatg ctgcttcttt cttttttttt 60
cttgagacac agtctcactc ttttgcgtag gctgtactgc agtgggtggga tctgcactca 120
ctgcaacctc tgcctcccga gttcaagtga ttctctccc tcagcctccc tagtagctgg 180
aattacaggc atgtgccacc acgacctcga g 211

```

<210> 634

<211> 253

<212> DNA

<213> Homo sapiens

<400> 634

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gaattcgcg cgcgctcgac atcatttctt ctcatgctt agtactgcta ccttagtttt 60
gttctcatg atttcttgcc tgtgttatta taatagatcc ctaagtgggc tctttgtcta 120
cattctcacc ccttcattt tatccattg tgccttccag aaggaaacttt ctaattgtag 180
atctgattgt gctctctctg gggcacacat cgtatcactg ccaggacagg accaagtacc 240
aagcaacctc gag 253

```

<210> 635

<211> 312

<212> DNA

<213> Homo sapiens

<400> 635

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gaattcgcg cgcgctcgac cctggctctg cccaacatga aggcaataat ttgttacctc 60
attaatagat ctgtcctttt tcttttcaaa cagttcctta tgttacccat gaaatctagc 120
tggggctgtg tgggtttctga ttccccctgg cttattcttt acttttcccta cttttccagg 180
ctcagcaggg agctgctgga tgagaaagag cctgaagtct tgcaggactc actggataga 240
ttttattcaa ctctttttga gtacctggaa ctgcctgact tatgccagcc ctacagaagt 300
gacgaactcg ag 312

```

<210> 636

<211> 168

<212> DNA

<213> Homo sapiens

<400> 636

gaattcgcg cgcgctcgac agccagagca atagtaatgt ttatagacca tctttctcat 60
 aaatgccact gctcactatt gtacatatgt ctttttcaag tatttttggga agacctccct 120
 cctctgctac catatttccc taatgtctgt gaaactaagt acctcgag 168

<210> 637

<211> 262

<212> DNA

<213> Homo sapiens

<400> 637

gaattcgcg cgcgctcgac gcattgaatc cagggttttt gtttcacttt gttttttcaa 60
 agaatacttc ttaagtggg gtattttttt gttgtattac atcatgtggc aaatgatctc 120
 tgtctgtgat gttatgattg atcaggtttc aggtgttata agtttgatta tcccttgta 180
 ccttgcagc ttttaccag tgatttcagt ggccgttaat ggcatggcc tagattcact 240
 atttcaggaa ggcacgctcg ag 262

<210> 638

<211> 254

<212> DNA

<213> Homo sapiens

<400> 638

gaattcgcg cgcgctcgac cttttcacga ttcattgctg aaggctttat tctatgaaga 60
 cctttgttgc tgaaggtatg aaggatgtgg tagtaatgga aagtatttta ctgatctttt 120
 atttcctttt aaattttttg agacagagtc tcgctctgct atccacgttg gagtgtggta 180
 gcgtgatctc agctcactgc aacccctgce tctgggttt aagcacttct cctgcctcag 240
 cctccaact cgag 254

<210> 639

<211> 169

<212> DNA

<213> Homo sapiens

<400> 639

gaattcgcg cgcgctcgac tattttacaa attactcata accagaagag ttctgttgga 60
 ttttaccata tggccagatt catcttgcct ttcaaactta tgtaagtaat ttttccaaat 120
 ctcttttttt cccataacat acatgctgct gagtccactc ctcctcgag 169

<210> 640

<211> 159

<212> DNA

<213> Homo sapiens

<400> 640

gaattcgcg cgcgctcgac cctaaaccgt caattgaatt ctagcaagga atttgtgggc 60
 aaacctacta ttttagacac tattaataag actgaattgg cctgtaataa cacagttatt 120
 ggttcccaaa tgcagttaca gctgggaaga gtcctcgag 159

<210> 641

<211> 230

<212> DNA

<213> Homo sapiens

<400> 641

gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt ctaggcgtga gccaccacac 60
 ccagcctgct atagcttttt ctttgcgag atttgttttt ccatttgctt tactagatta 120
 cttgaagcgc ttttataatg actgctgtag cttccttggt gaagaattcc agcgtctgtg 180
 tcactctggt gttggcatct acctattatc ttttctcct caaactcgag 230

<210> 642
<211> 253
<212> DNA
<213> Homo sapiens

<400> 642
gaattcgcg cgcgctcgac gcttttaaga actttcaaat atttctcca gctgtatatt 60
ggttgctctt agggaagagt ttgttctgaa ttgcctcgt ctgttttcca gaagtgaata 120
tttgaaccga ctgacctttt agttttagtt actgtatttt taaatatttt atttgcttcc 180
ttttagaagc tacatgctca atttttgtag ttctctatac ctcataaata tttttgagct 240
cagccagctc gag 253

<210> 643
<211> 245
<212> DNA
<213> Homo sapiens

<400> 643
gaattcgcg cgcgctcgac ccccgacac ctccaagtca cccaggtcca cctgcattgc 60
agcagacttc ccagccaca cccacgctct ctccctcttc tgtacgcatg acgctccttt 120
ctgcctctga gcatttgcac gtgctgttcc ctctacttgg aatactcttc cctctttttt 180
tttttatttt tgagacagag tctcactctg ttgccaggc gattctcttc tctcagcttc 240
tcgag 245

<210> 644
<211> 197
<212> DNA
<213> Homo sapiens

<400> 644
gaattcgcg cgcgctcgac cggatttcaa ggaattttta gactttgtgg attttttctt 60
cactataatt gtatgtttgg ctctaatttt atttaaatta catacataga tatttttgtt 120
actttgagaa tagtctatct gaaatttgaa gttctttaga gcttaatata ttaaataatgc 180
taacactcat cctcgag 197

<210> 645
<211> 258
<212> DNA
<213> Homo sapiens

<400> 645
gaattcgcg cgcgctcgac ggggaattact atctacctct tagtggtata ttggaatga 60
atgaaataac acatggagag aatttagtac aatacctggc acatcatata catgtttaaa 120
gtagtcttta tgcttgattt gaagttatta atgatgaact tggagattgg cacgggaata 180
agaaagaggg ttggcagaga tgttgagaag gttgaattga caggcagtg ctgtctggat 240
gttagggcaa ggctcgag 258

<210> 646
<211> 174
<212> DNA
<213> Homo sapiens

<400> 646
gaattcgcg cgcgctcgac gcaattcttc gctgaagtca tcatgagctt ttccaactc 60
ctgatgaaaa ggaaggact cattcccttg gtggtgttca tgactgtggc ggcgggtgga 120
gcctcatctt tcgctgtgta ttctcttggg aaaaccgatg tgatccttct cgag 174

<210> 647
<211> 201
<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (92)

<400> 647

gaattcgcg cgcgctcgac gtaaaaagat tctaacagga aggaggaggg tgtaataaaa 60
tagaaatggc atctctagaa ataatgttca tntttaagat tgattatagg gaggaaaatg 120
aaacacaatg agcctttcaa aaaataagtc atgagacttt gggcaaaaaa caaacaataa 180
aatatgaggt caactctcga g 201

<210> 648

<211> 198

<212> DNA

<213> Homo sapiens

<400> 648

gaattcgcg cgcgctcgat ttttgccatg aatgggaaaa gctttttttc tctttttttc 60
tttttcgtgt ttttttcttt tgtttcaaat tcttctcttg gctcattgct cttaatgctt 120
tgtctcccga aaagaggtag ctatgtaaaa acggaagtat ctggccctac gcagtggaaa 180
aagggactaa cactcgag 198

<210> 649

<211> 216

<212> DNA

<213> Homo sapiens

<400> 649

gaattcgcg cgcgctcgac gcaatttgaa tataatatgt ctagggtgtag ctttcttctt 60
tttttttagca tttattctgc ttggtatttt cttagcttct cgaatttggt gttggtagcc 120
gacattgatt tagaggaaat tcacagtcatt tattgtctta aatatttctt tctgttcctt 180
cttctctctg ttttctggtt acatgtacac ctcgag 216

<210> 650

<211> 157

<212> DNA

<213> Homo sapiens

<400> 650

gaattcgcg cgcgctcgac cctaatacaga aggcattgtt ttagtatttc ttgggagtggt 60
cagctgtata atgcagcagc tgttcaatcc cttacccttc tctgcaagga cttccttaca 120
gcttggtgca gttctttccc agaggccacc actcgag 157

<210> 651

<211> 158

<212> DNA

<213> Homo sapiens

<400> 651

gaattcgcg cgcgctcgac aatcatttca gatttccagg aaagttgcaa aaatatcata 60
aagaaatatt tacccttcac tcagattccc aaatgttagc acttcgccac atctgcctca 120
ttcttttttc tctctcttca cacacacaca cactcgag 158

<210> 652

<211> 227

<212> DNA

<213> Homo sapiens

<400> 652

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gaattcgcg cgcgctcgac agcccatgaa agattccaga acagagtttt gtaggttaaag 60
ttaagtgtat tacctggaaa gtctgttcca tgttgataaa cccaagtcct gaagaaggaa 120
agttgctgtt tcaaggattt ttcccttctt gtctctttct ttctctctgt gatgcacaca 180
aacacacaca tatacacata caatctctga attcactcaa actcgag 227

```

<210> 653

<211> 265

<212> DNA

<213> Homo sapiens

<400> 653

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gaattcgcg cgcgctcgac ctttcccatc cctagattcc tttgtgctgc ctgtctacat 60
tgtatgataa acatcacatt aaatgcaatc tctcccctcc caccctctct ttttttttga 120
gataggatct cgcttgctgt gttgccaggg ctgcagcgca gtgggtgtgga tcgtgggtca 180
ctgcagcctc accgtctggg ctcaagtgat ccctcccag agcctccact tcccagttacc 240
cgggactata gacacgtacc tcgag 265

```

<210> 654

<211> 240

<212> DNA

<213> Homo sapiens

<400> 654

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gaattcgcg cgcgctcgac gtgaggttga gggtecttcc atatattcac gggctgttta 60
tgtttatttc ctgtgagcta gctcttgata tctagtctcc tgattcttcc ccaagaaaaa 120
ttccataaat attttcacag gattgtgtta aattcctaga ttaatttggg aagaactgat 180
tttatgttgc atctttttat ccaagaactt gttatgttcc tccatttgtt caacctcgag 240

```

<210> 655

<211> 190

<212> DNA

<213> Homo sapiens

<400> 655

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gaattcgcg cgcgctcgac gtgagacctt gtctcaaaaa cagaacaaaa agcaaaacaa 60
ctgtattagg ggccagatgt ggtggctcat gcttgtaatc tcagtgcctt gggaggctga 120
gatgggagga ttgcttgaag ccaggagttc aagaccagcc tggggaacaa ccaaaccgt 180
tctccctata 190

```

<210> 656

<211> 164

<212> DNA

<213> Homo sapiens

<400> 656

```

gaattcgcg cgcgctcgac tgatttttta aatatatgtc ctttattaaa aatatatgaa 60
gtgcaatgaa agacaaaacc tgtgcattcc tcattgtagc acctattttt aaggcttccc 120
tatctgagtc agctcagttt ttgatgtggg cggaaagtct cgag 164

```

<210> 657

<211> 172

<212> DNA

<213> Homo sapiens

<400> 657

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gaattcgcg cgcgctcgac caacagggaa acaggagtgt catcaaaagt aaattccagc 60
cgagacattc tctctatat gagaagcaaa agtgaaagga aaaattttgg aaaagtaaaa 120
cactgaagag tcatagtatt ctctgtaac ttggaactgg agtgggtctcg ag 172

```

<210> 658

<211> 165

<212> DNA

<213> Homo sapiens

<400> 658

```
gaattcgcg cgcgctcgac aaataaagta gggatgccat ctgctatatt caaatgtcct 60
tgcagattgt tttttcta atctatgggtca tttctgata ttcttaaatt agatagtgat 120
tgctatggtta acacagagca gatagtattt gcacaatgcc tcgag 165
```

<210> 659

<211> 272

<212> DNA

<213> Homo sapiens

<400> 659

```
gaattcgcg cgcgctcgac cacacacaca tacacacata tatatatata accttataaa 60
gtatcatgta atatttttta taatttatct ttaattccaa taactagggtt acatagattc 120
taaagtcttg aatcctatag gcaagtgggt caattatttt atccatgtcg tctagatacc 180
tccttatttc taaatattat ttcttaattt ttccaatatt agatgttggt attgattgtc 240
tcacagatgc catcccta atgactctcg ag 272
```

<210> 660

<211> 253

<212> DNA

<213> Homo sapiens

<400> 660

```
gaattcgcg cgcgctcgac taggtttagt tgtcttaaca aaaaccagtc gaggaaaagt 60
tttttagttaa gcagaatact aaataaaaat attaatccag gctcagatat cttttgtttt 120
gatccctttg aaagtcagaa ctgggtttgt ttaggaggtat tttatgtatt tgatttttat 180
tcttaactat tcccttatga tggtagctgt tctttcagca aacagttatt ttgtgcctat 240
tgcgtcctc gag 253
```

<210> 661

<211> 283

<212> DNA

<213> Homo sapiens

<400> 661

```
gaattcgcg cgcgctcgac cgattgattt cgctagtact ttccaaaaat actaaacaat 60
aagatagtag tggagctttg tcctattcct tacttcaatc agatattttt aatgctttcc 120
tattaagatt agatctgggt ttagattgaa gcgtacatat tttatcatgt taaagtattc 180
agctgttact gtttttttaa agtttttggt ttgtttttgt tttgtttttt gttttttttt 240
gaggcagagt ctcaactctg tgcttaggct ggagcgactc gag 283
```

<210> 662

<211> 120

<212> DNA

<213> Homo sapiens

<400> 662

```
gaattcgcg cgcgctcgac ttgaattcta gacctgcctc tcacctggac cactggagga 60
accttctgat tggccccat gctttcactc ttgtcccacc tatttctcca cgcactcgag 120
```

<210> 663

<211> 244

<212> DNA

<213> Homo sapiens

<400> 663

```

gaattcgcg cgcgctcgac aactgcaatt acttctgtac caaccttaata gtttgccttag 60
tggtttttatc atgaaaaggt attagatttt taaaatgttt tttctgtctg ttgaggttat 120
cgtgtttattt tgctttgttg tactattgtg gtgtataatt ttttttgaga cggggtcttg 180
ctctgtcgcc caggctggag tgcagtggcg cgatctctgc tcaactgcaag ctccacatct 240
cgag 244

```

<210> 664

<211> 193

<212> DNA

<213> Homo sapiens

<400> 664

```

gaattcgcg cgcgctcgac taaactcctg agctcaagt atcctttctac ctccggctcc 60
caaagtaactg gtattacaga cgtgagccat ggcccccagc ctgtctctgt gttttaacct 120
tcatttagta ttagttctac aaatgattac ttatttaatg ctcaactacta gtctctgtgt 180
cagtatcctc gag 193

```

<210> 665

<211> 329

<212> DNA

<213> Homo sapiens

<400> 665

```

gaattcgcg cgcgctcgac cctcctcttc tgtcaccagt gccctcgccc cctccgatgt 60
catcacctca cccgggttcc ttaccgtctc catttgacc tgaaacctac ttgggagaat 120
atacagattc cagcgataat gactcagtc agcttagaaa ttctgtctgag tctgtttcag 180
aagatgatac aactgaatca cagaattatt ttggctcatt gagaaaaaat aaaggaagt 240
gcacatggga ggaaaagccc aaatcacatg aagctatcca agctctgaat acatgggaag 300
taataaagt gacaacttct ggactcgag 329

```

<210> 666

<211> 189

<212> DNA

<213> Homo sapiens

<400> 666

```

gaattcgcg cgcgctcgac tgcattgag tgtatgtgtt tgtcccccagc caaaatgacc 60
tttctcgtgt ccattattct gttatgtgtc cattactgtc ccacctccat gcctttcccc 120
agggtgttcc ttaacctgag aatgctcatt tcccctcttt tatctctgag tgtaaacccc 180
aaactcgag 189

```

<210> 667

<211> 218

<212> DNA

<213> Homo sapiens

<400> 667

```

gaattcgcg cgcgctcgac tatacatcca gaaaagtaca tagttcagtg ctttttctac 60
taagtgaatg catctgtctt taaaagtga ccaccccat aacagaaat agaattgtac 120
cagcattcca aagacccctt ctctgttacc tctccctcct tctccaagcc acactcctt 180
ctgacttctg tcaatataga tcaattggcc aactcgag 218

```

<210> 668

<211> 129

<212> DNA

<213> Homo sapiens

<400> 668

```

gaattcgcg cgcgctcgac cctcatctgg cgcattttta ttgcaagatc acaaatggca 60
agaaatatct ggtactttgt ggttagctgg tgttacaagt tttgtcata cttccgagca 120

```

acactcgag

129

<210> 669

<211> 251

<212> DNA

<213> Homo sapiens

<400> 669

```

gaattcgagg cgcgctcgac cagtctgggtg gtgggtgagg agtctgaggc cgttcccgag 60
gcctctctct cctccccgtt ccttcacccc ccaccccgca cccctttccc catcccggt 120
ccgtcaccct cccgtccccc acactcagga caagaatgcc ctgcccggaa caaccagca 180
gcgcctagat ggctttgggtc acgggtccagc ggtcacctac ccccgagacc acctccagcc 240
cgcaactcga g                                     251

```

<210> 670

<211> 175

<212> DNA

<213> Homo sapiens

<400> 670

```

gaattcgagg cgcgctcgac ccctatgcca aaatctccct atcattaaaa tacaacaccc 60
caaccctagg aaaaccattc ctgataccac gtgttgctat tatccactat ctctctcca 120
gtcctatcaa aacttgggtt tgctgtttct gatgctatta ttgtctctgc tcgag      175

```

<210> 671

<211> 211

<212> DNA

<213> Homo sapiens

<400> 671

```

gaattcgagg cgcgctcgac cttgcctggc aggagtggct tctaagaaga gctgttgatt 60
gttgaacttt gacgctaagg tgagggtttg gattttttgg ggatagcttt attttggtat 120
aatttttagaa aagtttgaga atagtacacg agttcctatt tacccttcac ctgaggtcac 180
gatgatattg gttttgcccc atttactcga g                                     211

```

<210> 672

<211> 296

<212> DNA

<213> Homo sapiens

<400> 672

```

gaattcgagg cgcgctcgac caccagacca gttctgtgcc tccatctgtt ttctgacttg 60
tgcgatcggg tggcagcccc atcagctgct acctcctctt tgtctctttg cccgtgtgtt 120
tatgctattc aaagtacctc tattttaatg gagttttggg acctatcaaa tataaatata 180
ccatttcctc aagaccattt ttcttttcta accagtaaat ttatatggca tttatttttt 240
cttacagaag ctctcttttt tttctctttt tcttttcttt tttggaggct ctcgag      296

```

<210> 673

<211> 176

<212> DNA

<213> Homo sapiens

<400> 673

```

gaattcgagg cgcgctcgac gagatgaatc caggctataa catttaacaa gaccttatta 60
aaagcttcaa gatgttagcc tttatctgtt ccatatctag cttacttggg tgtttttggg 120
ggatcacatg tctgtcctcc aaactggaaa cgtctaacte tccaggagta ctcgag      176

```

<210> 674

<211> 137

<212> DNA

<213> Homo sapiens

<400> 674

gaattcgcgg ccgcgtcgac cccatctatg aagaactgaa agaccgcagc cgtagaagaa 60
 tgatgaatgt gtccaagatt tcattttttg ctatgtttct catgtatctg cttgccgccc 120
 ccatcctctg cctcgag 137

<210> 675

<211> 202

<212> DNA

<213> Homo sapiens

<400> 675

gaattcgcgg ccgcgtcgac agcattttta gctttgtaca ttcaaagtca tgcatacttc 60
 tgagagggtcc tttaatgtga agattttttg cttgcatcac ttcctctgga acatcttcat 120
 cttctgtttg ctaatttcta cttttagtta tttatttttt aaattaaatg tcatatgggc 180
 ttattattgg gatagcctcg ag 202

<210> 676

<211> 227

<212> DNA

<213> Homo sapiens

<400> 676

gaattcgcgg ccgcgtcgac aaaagaagtt aactagagtg ccatgaaagt cactggactt 60
 gaataaaaaat gaatatcttt ctctggacaa aagcagcact tcagattctg ttgatgaaga 120
 aaatgttctt gagaaagatc ttcatggaag actttttatc aaccgtattt ttcatatcag 180
 tgctgacaga atgtttgaat tgctctttac cagttcacgc tctcgag 227

<210> 677

<211> 556

<212> DNA

<213> Homo sapiens

<400> 677

gaattcgcgg ccgcgtcgac agttggaaag cttgcagcat ctggatcaat tacaatgcaa 60
 gaacattgga gctatgtcaa gctacctctt catagtgaat tatgagttgc ctttggtgat 120
 ccaggcatta acgaacattg aagataaaac tggattgttg tatctgaacg ggaactattt 180
 ggttctgttg gtgtcattgg tggtcattct tcctttgtcg ctgttttagaa atttaggata 240
 tttgggatat accagtggcc tttccttggt gtgtatgggtg ttctttctga ttgtggtcat 300
 ttgcaagaaa tttcagggtc cgtgtcctgt ggaagctgct ttgataatta acgaaacaat 360
 aaacaccacc ttaacacagc caacagctct gtacactgct ttgtcacata acgtgactga 420
 aaatgactct tgcagacctc actattttat tttcaactca cagactgtct atgctgtgcc 480
 aattctgac ttttcatttg tctgtcatcc tgctgttctt cccatctatg aagaactgaa 540
 aaaccgcagc ctcgag 556

<210> 678

<211> 196

<212> DNA

<213> Homo sapiens

<400> 678

gaattcgcgg ccgcgtcgac atttgtttta ttcagataga gtttacatgc agtaaaattt 60
 attctttttt aggtttgcag tttgatgagt ctgacaatgt atagtcatat aaccaacact 120
 acagttgaga tatagaatat taccacagaa agttccctgt accttttagt gattctcttc 180
 tccccacgt ctcgag 196

<210> 679

<211> 226

<212> DNA

<213> Homo sapiens

<400> 679

```
gaattcgcg cgcgctcgac tgcttttagta ataaattgcc taccagtttt gtaaagcttg 60
gtatatctta tttttctttt gacttttgtc aaacacagaa gtaataaag cccctcgat 120
ccaactagca gctcctcagt tatcaattcg tggcccatct catttcacct gctcttattt 180
tttagttttt cattttgtaa tgcttgtaatt caacacagtg ctcgag 226
```

<210> 680

<211> 113

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (104)

<400> 680

```
gaattcgcg cgcgctcgac actaagggtg gagtcactgt gcccggcctg atgatttttt 60
tatcatatct gtgtttctgc agagtttttag tggctaaaga aagnacactc gag 113
```

<210> 681

<211> 196

<212> DNA

<213> Homo sapiens

<400> 681

```
gaattcgcg cgcgctcgac taagaatggt atgttatcaa aataccttta atagtcacct 60
tatagcactc tgctatttgc catccagttt tatgcatcaa acacaatata ctttttgggt 120
attcctaact gctcaatggc aaacacacgt tccagaatat agtcatggga cttacaacat 180
aatgacctgc ctcgag 196
```

<210> 682

<211> 226

<212> DNA

<213> Homo sapiens

<400> 682

```
gaattcgcg cgcgctcgac tgagaatggt ggtagtgagg agaagagtca aaaaatggca 60
gttaattatt cagttatttg ctacttggtt ttagcgagc ctcagtgttt ttggggaacc 120
aatcgataat cacattgtga gccatatgaa gtcatattct tacagatacc tcataaatag 180
ctatgacttt gtgaatgata cctgtgtctt taagcacaca ctcgag 226
```

<210> 683

<211> 196

<212> DNA

<213> Homo sapiens

<400> 683

```
gaattcgcg cgcgctcgac taaaatacag ttgaagattt ggctgcattt ttgccttacg 60
attacatacc ttaataatta caactcaatt gaggggtcca tatatattct ttctcatttt 120
ctggcagtaa atcatattca tcatatactt cccaattttg cacacacaaa aaatgaaaat 180
agccccctat ctcgag 196
```

<210> 684

<211> 193

<212> DNA

<213> Homo sapiens

<400> 684

```

gaattcgcg cgcgctcgac aactttatcc caaaagtagt gcatgtggag aaagaatcta 60
gactttcttg tatacatctt tctcttctcc agtaataaac aattaccttt catttatact 120
ttgataacct gtatttaatt taaaaaaaaa cataaaaaatg aggaaccaag tgaaactacg 180
gatattcctc gag 193

```

<210> 685

<211> 258

<212> DNA

<213> Homo sapiens

<400> 685

```

gaattcgcg cgcgctcgac acttctgact ctgtcagtat tccctatccc tgctcctgat 60
ttcttctttt tcatagccgt cgccttaaca cacattctac atttgactta tttttctttt 120
taatcatcta cgtccctcca ctaggctgta aactacagga tgacaaagggt tttgtctgtt 180
tttttcattg ctggctgttc aatatctaatt ctagtgccctg gcatgtcatg gacaattaat 240
aaatgtgaac acctcgag 258

```

<210> 686

<211> 197

<212> DNA

<213> Homo sapiens

<400> 686

```

gaattcgcg cgcgctcgac gtattaatag tattectaatt gtgtgctgca gaaatggcta 60
tgagcctctt aaatttacat ttgcaactta aaggtagttt tagaaggag taaaaattgg 120
ctttcatctt gcaaacaatc gttttttaat tcattatctt aatttgcttt gtcactcata 180
aaaaggaaac actcgag 197

```

<210> 687

<211> 304

<212> DNA

<213> Homo sapiens

<400> 687

```

gaattcgcg cgcgctcgac agaagtaaag atcctgaata acttctcaag gttatagtca 60
cacagctagt aagaagcaaa gtggcattgt taatacctcc caccattaaa aaaaaaaaag 120
gtggttatag caaagtatac actagaataa tttgagttgt ttgagatgga tacaggatc 180
tcttttttta aattagtagg tacaacaaa gaacttgaaa accacatcct tttagattct 240
ttgttggttc taggagtgtg tttcaagggtg gttagtaatt tgtgtttccc tgggccatct 300
cgag 304

```

<210> 688

<211> 156

<212> DNA

<213> Homo sapiens

<400> 688

```

gaattcgcg cgcgctcgac gttaaaccct ggctaatttt attgtctttt ttagagatg 60
ggatttcacc atcttgccct ggctgttctt gaactcctgg gctcaagctg tcttcccgc 120
tcaagcctcc cgaagtgtg ggattgcaga ctcgag 156

```

<210> 689

<211> 329

<212> DNA

<213> Homo sapiens

<400> 689

```

gaattcgcg cgcgctcgac atgggacaga gtccaagcat gatgggtggc atgcccatgc 60
ccaatgggtt tatgggaaat gcacaaactg gtgtgatgcc acttctcag aacgttgttg 120
gcccccaagg aggaatgggt ggacaaatgg gtgcaccca gagtaagttt ggctgcccgc 180

```


aagctcagca gccccagtgg agcctctcac agatgaatca gcagatggct ggcagtagta 240
 tcagtagtgc aacctctact gcaggttttg gccagccctc cagcacaaca gcaggatgg 300
 ctggaagctc atcaggtcat tctctcgag 329

<210> 690

<211> 191

<212> DNA

<213> Homo sapiens

<400> 690

gaattcgcg cgcgctcgac gttaaacttt acatttttaa ttaatttatg ttgtatgta 60
 tttatttgtt gagaaagggt ctctctctgt cacctctact agaatgcagt ggcgccatca 120
 tggcttaactg cttcctgggc tcaagctgtt ctccatttc agcctcccca tgcaccaccc 180
 tcatgctcga g 191

<210> 691

<211> 173

<212> DNA

<213> Homo sapiens

<400> 691

gaattcgcg cgcgctcgac atactgtata atttgggtga ggtctacaaa attgggtgtg 60
 actttccttt gcaaatggat ttctcctggg gaattttctt ggctgttctg gaaatgcttt 120
 cccacagctg ggtaactgtt ctaaattggc ttgataatgc tcacaccctc gag 173

<210> 692

<211> 349

<212> DNA

<213> Homo sapiens

<400> 692

gaattcgcg cgcgctcgac gtgatttata atgacatcct gagaaaagtc agtgaaactc 60
 atttctaacy aataccagat ttcttaaaat agtcaagtat tttctttttg tgtatgatga 120
 gatattaact tgggtgttatt tcattttttt tttttaagga gtcattctac cctgttctat 180
 ctttacttat gtgaaaatgt ttaaaactatg agtttttttc atgtgccttc ttttggagta 240
 atgtcaactt ttaaatacac atgtttaaat aacttagagt gtaataaatt gtgtttaata 300
 tatactgtag ataatgatgg ttaaatgctt tgttaacaca tgtctcgag 349

<210> 693

<211> 272

<212> DNA

<213> Homo sapiens

<400> 693

gaattcgcg cgcgctcgac cctgcctcta agataaaagc tcaacttctt aacagtgtac 60
 agtgtgcaac ttccaacctt tttatctgtt ctctccacct tcagtttagc gtcattccaa 120
 aaccacaccc ttgcaaaagt ttgtactccg caccacagat gatctccagg cagctcagat 180
 ctctttcctg cctttgccct gcaactgttc ccggtacttc ctcttttatt gtagcactca 240
 gctccccagc caatctgtcc atcgtcctcg ag 272

<210> 694

<211> 212

<212> DNA

<213> Homo sapiens

<400> 694

gaattcgcg cgcgctcgac cagagaacag gcaaaaaatt actgaagact ttaacagcat 60
 ctgaaatgct acctttattg gatcattgga atactcaaac taaaaaagta tcaactcagag 120
 aaataatgct agaagaaatt gccttacagg aaaaacataa tttgaaaagg gagaccctta 180
 tgtttgaaaa agattgtgcc actcaactcg ag 212

<210> 695
 <211> 226
 <212> DNA
 <213> Homo sapiens

<400> 695
 gaattcgcgg ccgcgctcgac catattttgt ttgtccattc atcaggtaat ggatatttgg 60
 attgttgccg gtactgttat tgtactcct attttatttt agaaatacga aaagtgaatc 120
 tcaggggaagt aagttcacca aggtcagaca aatagcaaag ctgagacgca cacaaactta 180
 agtgtgtctg atgctatatt tctttctctt aaccactgcc ctcgag 226

<210> 696
 <211> 194
 <212> DNA
 <213> Homo sapiens

<400> 696
 gaattcgcgg ccgcgctcgac tgaagagatt atattcctct acatcaggtc ccaaagatgc 60
 agttctgtgg gcaactggga agttggaaac tgaatatggg gaaaatgac ccgtcactat 120
 tcctaggagc gtggctgtct cctcagcact cacgagtgtg tgggtgtagta gggggcgggg 180
 gtatggaaact cgag 194

<210> 697
 <211> 196
 <212> DNA
 <213> Homo sapiens

<400> 697
 gaattcgcgg ccgcgctcgac tctctaccaa gccctttgtc ttgtgaattc tcttctctctg 60
 ctgattctgc atggcctttct atcctattca gtatcaagtt ctgatttttt gtttattttg 120
 ttttcatttc atttctaagt attgtctaat gateccgtcc tctgtgatat ggtttggtctg 180
 tgtccctact ctcgag 196

<210> 698
 <211> 212
 <212> DNA
 <213> Homo sapiens

<400> 698
 gaattcgcgg ccgcgctcgac cttaattcct actacaaagc taaataatat ataaaataaa 60
 tagaaaaaat cagtgtctca agttatcctt taatgtgggg aataaaatgt ctgaaagtca 120
 tttatgaact aatttttagaa tgctctacta ctggaaatat ttattctttc aacactacat 180
 ttgttggttt agatgcttgc caacaactcg ag 212

<210> 699
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 699
 gaattcgcgg ccgcgctcgac ctaagtactt tttctttttg aagccattgt aagtgttaatt 60
 attttcgttt cattttcaga ctgttcattt ctagtgtatg caactaattt ttgtgtattg 120
 atgttatctc ccacaacttt gaacttgctt attagctcta acagttattt tgtagattct 180
 tcaggggttt ctctacaca taggattatg ttacctgttt ttgtttttt tgtttttgtt 240
 tttgttgctt tgttttttga gacagggtct cactctgtca cccaggaccg gaagctcgag 300

<210> 700
 <211> 124
 <212> DNA
 <213> Homo sapiens

<400> 700

gaattcgcgg ccgcgctcgac attgaattct agactgcttc atggatacaa tatctgtgca 60
 tctcttttgac agtattatgc tttttctttt cttctctttt ttgaggtgga gtctcactct 120
 cgag 124

<210> 701

<211> 214

<212> DNA

<213> Homo sapiens

<400> 701

gaattcgcgg ccgcgctcgac aggggaataag agtttttaggc atctataaaa ctgtctgaga 60
 ttttaaccttt tctcatataa gcaagggatt tgattacaca aaattttttg acagtggata 120
 gctagactgt acttatcaat ttgttcacta ctgttctatg gctatctctg gaagaccctt 180
 taggtacaat aaggaagatg ggagagtact cgag 214

<210> 702

<211> 286

<212> DNA

<213> Homo sapiens

<400> 702

gaattcgcgg ccgcgctcgac ggtagcctct cacaactccg cccttgccct ctgccttcca 60
 cttccttcca tctcatttct aaaccccaaa cagctcatct ctaaaaagat agaactccca 120
 gcaggtggct tctgtgttct tctgacaaat gattcctgct tctccagact ttagcagcct 180
 cctgttccca ttcttggtea cagctctagc cacagcagaa ggaaaggggc ttccagaaga 240
 atatagcacc gcattgggaa acagcagcct ctaccctcc ctcgag 286

<210> 703

<211> 158

<212> DNA

<213> Homo sapiens

<400> 703

gaattcgcgg ccgcgctcgac gttataaagg gacacagctg aaagccttac tgatacttga 60
 aggaggccag aaagtgttt tcaaacctaa gcggtatagc cgagaccatg tgggtggaagg 120
 ggaaccgtat gctggttatg atagtcacaa tgctcgag 158

<210> 704

<211> 439

<212> DNA

<213> Homo sapiens

<400> 704

gaattcgcgg ccgcgctcgac acacaattct tttcttcgcg ttggatatte gcatgggcct 60
 actttacatc acactctgca tagtgttccct gatgacgtgc aaaccccccc tatatatggg 120
 ccctgagtat atcaagtact tcaatgataa aaccattgat gaggaactag aacgggacaa 180
 gagggtcact tggattgtgg agttctttgc caattggtct aatgactgcc aatcatttgc 240
 ccctatctat gctgacctct cccttaataa caactgtaca gggctaaatt ttgggaaggt 300
 ggatgttggg cgtatactg atgttagtac gcggtacaaa gtgagcacat caccctcac 360
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 gattgacaat aaactcgag 439

<210> 705

<211> 192

<212> DNA

<213> Homo sapiens

<400> 705

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agcctgtgtt gggaaatcct gccctgtgct gcctcttgtt gcagagatcc tatctggata 120
 aagtgcctggg taaccaggaa tcagaacctc tggaggacga gtatgacttc tttctgtccc 180
 ctgctgctcg ag 192

<210> 706
 <211> 205
 <212> DNA
 <213> Homo sapiens

<400> 706
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 gagagatcta gaacagatgc ctcaacgacg aagaatgaac agcactggtg gtcagacacc 120
 cagaagagac ctggaaaagg tgctgacagg agaggagaag gctcttagac ctggagatcc 180
 tggattctgt gccctgacgc tcgag 205

<210> 707
 <211> 279
 <212> DNA
 <213> Homo sapiens

<400> 707
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 tcagcgaagt tggccctttc cattccagct gaaaaatttg aaaacatgaa gagctcatta 180
 tcaaatgaag tgaatgagaa agcaaaaaaa ttagtagaaa tggaaagaga acatgaaaaa 240
 tcacttagtg aaattagaca gttaaaaaaa gaactcgag 279

<210> 708
 <211> 228
 <212> DNA
 <213> Homo sapiens

<400> 708
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 tcaacaggac tgtcgtgct atctccacca gcagggcccc gcggagctcc ccccgctgcc 180
 ccttaccacc ccttcaactc acaagccaat ctgaccccgag ttctcgag 228

<210> 709
 <211> 189
 <212> DNA
 <213> Homo sapiens

<400> 709
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 gagaaaagcg agaagagatc cgagaagata ggaatccaag agatggacat gatgaaagaa 120
 aatcaaagaa gcgctataga aatgaaggga gtcccagccc tagacagtcc ccgaagcgcc 180
 caactcgag 189

<210> 710
 <211> 293
 <212> DNA
 <213> Homo sapiens

<400> 710
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 agatgaatat tttctcaga tctctgctag tcttggtgtt ttctcttaa actagctgta 180
 tcttgctgga ggtccctgaa agtgaattaa ctttggatct cttaggtatc tgtgtttgga 240
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<210> 711
 <211> 143
 <212> DNA
 <213> Homo sapiens

<400> 711
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 tcatgtatca tctctttttg aaaggagtcc tgtcttgccct agctctgtac aattttcttc 120
 tcatgggtact ctgtgttctc gag 143

<210> 712
 <211> 195
 <212> DNA
 <213> Homo sapiens

<400> 712
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 cagatcaact taaggagatt gcaaaattac gccagcagtt gcagagaagt aaacacagca 120
 gtcggcatca tcgagataaa gaaagacagt ctccatttca tggcaaccat gcagctatta 180
 accagtgtcc tcgag 195

<210> 713
 <211> 170
 <212> DNA
 <213> Homo sapiens

<400> 713
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 aaatataact ccattaaaag tttaaaattt catggggagaa aatataataa ggtaaagagg 120
 tagaatcact ttcagactta agaataatgt tgatttccca aatgctcgag 170

<210> 714
 <211> 170
 <212> DNA
 <213> Homo sapiens

<400> 714
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 ttatttttct ttttagtata gtggtactta aaatcactgg ttcactcgag 170

<210> 715
 <211> 200
 <212> DNA
 <213> Homo sapiens

<400> 715
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 aattaatccc ttaacaaaa agccgtctat gggattaaaa gacacgtgaa atgatacttt 180
 tattattccc attactcgag 200

<210> 716
 <211> 232
 <212> DNA
 <213> Homo sapiens

<400> 716
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 ggatctgggc ttctggagag tattgctgtt gatcttcgtc attgctttgc tgtctcttgg 180

cattgcttat tatgtgagtg ggggtgctacc cttcgtggaa aaccacctcg ag 232

<210> 717

<211> 332

<212> DNA

<213> Homo sapiens

<400> 717

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ttttgggtcat tggaaacagc tatttggaag ctcaaggaat atgggagcca ttctgaaggc 180
ggctatcctt tgaggcctcg aaccgcctt tcgatgtggg aaggccattt gatctcagga 240
gaatcggttg tatttcatct gaaggaaact tgaacacact cagctgtgac cccggtcaca 300
gtaggggggt ctgtggagca ggcttactcg ag 332

<210> 718

<211> 155

<212> DNA

<213> Homo sapiens

<400> 718

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tattccagaa gtccaacaag agaataataat caatcctcaa gacctaacag tgaatctagt 120
tgctaatagt cctcaagatg gagaagatgc tcgag 155

<210> 719

<211> 188

<212> DNA

<213> Homo sapiens

<400> 719

gaattcgcg cgcgctcgac gctttccgat ctactccttt tategttcct agcagtccca 60
cagagcaaga agggagacaa gataagccaa tggacacgac agtggtatct gaagaaggag 120
gagagccttt tcagaagaaa cttcaaagtg gtgaaccagt ggagttagaa aaccccccat 180
cactcgag 188

<210> 720

<211> 176

<212> DNA

<213> Homo sapiens

<400> 720

gaattcgcg cgcgctcgac cctgcctcga actcctgacc tcaagtgatc ctcccacctc 60
agcctccccg agtgctggga ttaaagacgt gagccacggc acctggcctg aattttcctc 120
aaattcaaaa aatcctgatg aaggtttggc taaaatcttt ggtgagctac ctcgag 176

<210> 721

<211> 226

<212> DNA

<213> Homo sapiens

<400> 721

gaattcgcg cgcgctcgac tttttgggta cgcttatata atttgagctc ttgactttga 60
aaagggtttt ccttttggga tcttaattcc accgtgtata aatatggatg agtggatatg 120
ggttagggct gaagtattc tcattaatat tcatcattag tggatatctg tttcatttac 180
tataaaacac attgcatcaa tgcactttaa aaaaatctta ctcgag 226

<210> 722

<211> 222

<212> DNA

<213> Homo sapiens

<400> 722

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gaattcgcgg ccgcgtcgac gttaatattg aagtacagtt ggcttcagaa ctagctattg 60
ctgccattga aaaaaatggt ggtgttgta ctacagcctt ctatgatcca agaagtctgg 120
acattgtatg caaacctgtt ccattctttc ttcgtggaca acccattcca aaaagaatgc 180
ttccaccaga agaactggta ccatattaca ctggtactcg ag 222
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<210> 723

<211> 184

<212> DNA

<213> Homo sapiens

<400> 723

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gaattcgcgg ccgcgtcgac ttaagatctt gtggtcacaa ctgatgaaag gcgcccttga 60
catctgtctg tgctctgtt tctttttgga gatagagtct gtctctgtca cccaggctgg 120
aatgcagtgg cgcgatctcg gctcactgca acctccacct cccagggtta agcgatatct 180
cgag 184
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<210> 724

<211> 304

<212> DNA

<213> Homo sapiens

<400> 724

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gaattcgcgg ccgcgtcgac ccctaaaggga cccagacatg gcaatggaga tttgtgctac 60
ggatgctgta gatgatattg aagaaggtct taaagtccta atgaaggcag accctggtag 120
acaggaatcc ttgcaagcag aggttatccc agatccaatg gagggagagc aaacctggcc 180
cactgaggag gagctgagcg aggcaaagga tttcttgaag gaaagttcta aggtggtaaa 240
gaagggtccc aaaggaacat ccagttacca agctgaatgg attttggatg gtggcagact 300
cgag 304
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<210> 725

<211> 234

<212> DNA

<213> Homo sapiens

<400> 725

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gaattcgcgg ccgcgtcgac attgaattc agacctgcc taccattcac ccagctcaca 60
gactgccaac aggaagtgtt gtttggctag tttctccca cttgtctacc cctccttgt 120
ccttagacca acatgtttac ctctctgctt tgccaactta gccagcaggc catccccggc 180
cctaactgtt cctggccatt atctcttagt tatggcttcc acgtctcct cgag 234
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<210> 726

<211> 160

<212> DNA

<213> Homo sapiens

<400> 726

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gaattcgcgg ccgcgtcgac gaggggggtg ggttacatga gtatatatat ctttatcaaa 60
actgaaagaa ttgtaccctt taagatttct aggccaaagt cagtggctca tgctgtgat 120
cccagcactc tgggaggtcg aggtgggtg atcgctcgag 160
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<210> 727

<211> 335

<212> DNA

<213> Homo sapiens

<400> 727

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gaattcggcc aaagaggcct agcattgctg agtggggacc ttttgggttg agcttatatt 60
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acettttttt ttttttttaa ttcttggtgc tcttttatca cettctctaa tcttttaatg 120
 tgtctgtttg caatatgggg gtttagacttt ttttatcatt acctttttctt ttctttggct 180
 gtacatttac ctttttcaca aatactgtaa gctgtcctgc tccttgccagg actacagggc 240
 ctgggcaggg cccccagca acaattcacc cacagtgcac ctgcacatgc ctttctctaca 300
 tgcttgcctc gtctcgaact agtcacaatc tcgag 335

<210> 728

<211> 425

<212> DNA

<213> Homo sapiens

<400> 728

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 ttccccgcct ctcagtacca ccaccacagc ccggcccaca cccctcacca gcacagcctc 180
 gcctgcagcc accactccac tccgcggggc acccctcacc acacaccag tgggtgccat 240
 caaccagctg ggacctgacc tgcctccagc cacagctcca gaccccagta cccgaaggcc 300
 tccagcccc aatctgcatg tgtcccctga gctcttctgt gaacccagag aggtccggcg 360
 ggtccagtgg ccagctaccc aacagggtat gctggtggag agaccttgcc ccaagggaac 420
 tcgag 425

<210> 729

<211> 137

<212> DNA

<213> Homo sapiens

<400> 729

gaattcggcc aagtatttct tcaaccagct gtttggagag gaagatgctg atcaagatgc 60
 tgatcaagaa gtgtctctctg acagagctga ccctgaggct gcttggaac caacagaggc 120
 tgaagctaga gctcgag 137

<210> 730

<211> 196

<212> DNA

<213> Homo sapiens

<400> 730

gaattcggcg ccgcgtcgac cctgggcaac atagtggagc ccatctctaa agaaacaaac 60
 aaaaaatcaa ttgtatttct agatactagc agcaacaac ttaaaaatga aaattagcca 120
 ggcgcgggtg ctcacgcctg taatggcagc actttgggag gccaaagggtg ttggatcacg 180
 aggtcaggag ctcgag 196

<210> 731

<211> 439

<212> DNA

<213> Homo sapiens

<400> 731

gaattcggcc aaagaggcct acagaatgaa gctccggcta attgcatttg tcttaatect 60
 ctggactgaa accctggcag accagagccc agggccaggc cccgagtacg cagacgtggt 120
 gtttctgttg gacagctccg attacctggg aattaagtcc ttcccatttg tgagaacttt 180
 tctcaacaga atgatcagca gcctcccat agaggccaac aagtaccgag tggccctggc 240
 ccagtacagc gatgctctcc acaatgagtt ccagctgggc acctcaaga acagggaacc 300
 catgctgaac cacctgaaga agaacttcgg gtccatcggt ggctccctga agatagggaa 360
 cgccctgcag gagctcacag gacctatttc tctgctccca gaagtggag agacaagaaa 420
 cagttcccc aaactcgag 439

<210> 732

<211> 259

<212> DNA

<213> Homo sapiens

<400> 732

gaattcggcc aaagaggcct acaggcttcc cgcaattaaa acatgtcctc tgatcattac 60
 tgcccatgga gcggttctga gattgaagga tggcgccgc taagcctgca ttggtgagag 120
 gacccccaag ctctcgacag accctgagcc agtcttgtaa gcctttgttc tttcttgggg 180
 ctatggccgc tcggcactcc tttgtggctt gctcatagat tagctgttct atcagaggcg 240
 cagcttgctc tgactcgag 259

<210> 733

<211> 231

<212> DNA

<213> Homo sapiens

<400> 733

gaattcggcg cgcgctcgac cgagtctgag tggctgaatt ctacacatct ctctagtccc 60
 tctgaagccc cacctctgga gcgctgcctc tgatcacccc agcccacagt gatctgagtt 120
 cacagagcac atctgtttg aatgccccat ttgaatcaca gcctattcct ctttttgagt 180
 gttggttgtg ccttaagtgc acagatggct tttcaccagc tggacctga g 231

<210> 734

<211> 352

<212> DNA

<213> Homo sapiens

<400> 734

gaattcggcc aaagaggcct aagtgattcg attcaacata gactacacga ttcattttat 60
 cgaagagatg atgcctggga atttttgtgt gaaaggactt gaactgtttt cattgttctt 120
 attcagagat attttggaat tatatgactg gaatcttaa ggtcctttgt ttgaagacag 180
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 aggcaaggaa gtgttatcca tgcaccagat ctttctctac ctgctgcgct gcagcaaggc 300
 tctggtgccc gaggaggaga ttgccaacat gctccagtgg gaggagctcg ag 352

<210> 735

<211> 241

<212> DNA

<213> Homo sapiens

<400> 735

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 tcgaaacccc ggtcaccctt ggggccagtt tgtccaggca ttcctctggc tccatcactc 180
 ccagcccgac ccgctcttcc gggcttcccg gccggaccag gcgggccttg cacacctga 240
 g 241

<210> 736

<211> 465

<212> DNA

<213> Homo sapiens

<400> 736

gaattcggcc aaagagccta gggaggtttg tttcctgacg ggaggtaggg ggactgctga 60
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 ttggagccgt acgatagcca ggctggggcg ggccactcct ctgtggagac caagagtaac 180
 ccaccatggc cctgggtcct gcatgaggtg atgggtaagg acccagaggc ccaccatagg 240
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 gtggaggctg ttcttcagtc tcaggcgggtg tcgcctgggg tactgggctg ggggggtggcg 420
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<210> 737

<211> 509

<212> DNA

<213> Homo sapiens

<400> 737

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gaattcgcgg ccgcgtcgac caaccgtcaa aatgtccaaa gaacctctca ttctctggct 60
gatgattgag ttttgggtggc ttacctgac accagtcact tcagagactg ttgtgacgga 120
ggttttgggt caccgggtga ctttgccctg tctgtactca tcctgggtctc acaacaggca 180
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actgctgccg catagaagtg cctggctggc tcaacgatgt aaagataaac gtgcgcctga 420
atctacagag agcctcaaca accacgcaca gaacagcaac caccaccaca cgcagaacaa 480
caacaacaag cccaccacc actctcgag 509

```

<210> 738

<211> 343

<212> DNA

<213> Homo sapiens

<400> 738

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gaattcgcgg ccgcgtcgac gagctgggtg gtggttgtgg agttggctgt gaataatgaa 60
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ttctgtggtt gctttttcac catcagctag tttagatagt ttttcggcta cagactctct 300
gataaagctg tactgagcga ttgaattcta gacctgcctc gag 343

```

<210> 739

<211> 106

<212> DNA

<213> Homo sapiens

<400> 739

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gaattcgcgg ccgcgtgacg aggggttggg tgtttttttt cttcttttct tttaaataaa 60
aatgctgcaa ggtttccgcc tctgcgttcc cgttggtgctg ctcgag 106

```

<210> 740

<211> 479

<212> DNA

<213> Homo sapiens

<400> 740

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gaattcgcgg ccgcgtcgac cgggaaacca aaatggcgag gggctgtatt gaagtgggct 60
gtgtttgagg ccggtgtaag aacgctcatt ctaccccaa cccttgtctc caaggacctc 120
ggtttgtcgc tgcatatgtg ccgggtaccc ggtggggcgg gtgccagta agtgctcgga 180
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caccactgaa gtgaccgaat gaggtgagag accttggcct gggaaccgac tcttccggag 300
gagatggggg ttgggggaag gaggaagaaa gaaagcaagt ataaaaggga aagatggagg 360
accaaggtgg ggggtggggc tcctgtatgt ggggtgcctt gcatttatgt gtatattgaa 420
aagaatggat gaagaggagt agtcagtga gtgttgggag aaaaatgaga ctactcgag 479

```

<210> 741

<211> 195

<212> DNA

<213> Homo sapiens

<400> 741

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ttttcgaaaa tgataggcaa aagttgggga acattacatg atatccaaa caggtttatt 120
ctatatctgt gtttcagatt tcatctttta gcacttgggt tacgagttac tgtgctaact 180

```

ccacaaactc tcgag

195

<210> 742

<211> 592

<212> DNA

<213> Homo sapiens

<400> 742

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gaattcgcg cgcgctcgac cccattggct gaagatgaga ccattcttcc tcttggttt 60
tgccctgcct ggcctcctgc atgcccaca agcctgctcc cgtggggcct gctatccacc 120
tgttggggac ctgcttggtg ggaggaccgc gtttctccga gcttcatcta cctgtggact 180
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cggcccatg cgctggtggc agtcccagaa tgatgtgaac cctgtctctc tgcagctgga 360
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cggcatggtg attgagcgt cctcagactt cggtaagacc gggggagtgt accagtacct 480
ggctgaggac tgcacctcca ccttccctcg ggtccgccag ggtcggcctc agagctggca 540
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<210> 743

<211> 367

<212> DNA

<213> Homo sapiens

<400> 743

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gaattcgcg cgcgctcgac gtgaccttg ataaattcct taagttcttt ggtgtttctt 60
catctttttt taaataatag ctttattgaa gtatacagtc atgttgagaa atgcgtcatt 120
agacaatttc gtacatgcgt gagcatcaca gagtatactt atattaaccg agaggtataa 180
cctacccac acctaggcta tatgatatag tctattgctg ctagtctgca aacatgtgca 240
gcatgttact gtactgaata ctgtaggcaa ttgtagtaca atggtatttg tttatctgaa 300
catatctaaa ctaacaaaag tacagaaaaa tgtgatataa cagattttta aaaggtacgc 360
gctcgag 367

```

<210> 744

<211> 655

<212> DNA

<213> Homo sapiens

<400> 744

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gaattcgcg cgcgctcgac tccaaatgag aaaaaagtgg aaaatgggag gcatgaaata 60
catcttttct tttgtgttct ttcttttgct agaaggaggc aaacagagc aagtaaaaca 120
ttcagagaca tattgcatgt ttcaagacaa gaagtacaga gtgggtgaga gatggcatcc 180
ttacctggaa ctttatgggt tggtttactg cgtgaactgc atctgctcag agaattggaa 240
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tcattctgtc tgccctcgct gcccagaaga ctccctaccc ccagtgaaca ataaggtgac 360
cagcaagtct tgcgagtaca atgggacaac ttaccaacat ggagagctgt tcgtagctga 420
agggctcttt cagaatcggc aacccaatca atgcacccag tgcagctgtt cggagggaaa 480
cgtgtattgt ggtctcaaga cttgcccaca attaacctgt gccttcccag tctctgttcc 540
agattcctgc tgcgggtat gcagaggaga tggagaactg tcatgggaac attctgatgg 600
tgatatcttc cggcaacctg ccaacagaga agcaagacat tcttaccac tcgag 655

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<210> 745

<211> 268

<212> DNA

<213> Homo sapiens

<400> 745

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gaattcgcg cgcgctcgac cattgtcaaa cttgacctt taaataatct gatttaactc 60
ctttttaatt taaatcctgt ttttaattcat gacactggaa gctatatata taataacctt 120
tttttcattt tttagttgga caactagtgg tttgaagagc cagggccgctc tgcagtagg 180

```

aagtaatcgt gatcgagaga tcagcatgtc tgttggtctg ggaagatcac aattagattc 240
 taaaggagga gtagttggag ttctcgag 268

<210> 746
 <211> 181
 <212> DNA
 <213> Homo sapiens

<400> 746
 gaattcgcgg ccgcgtcgac ataagttaaa gatgtatagc gtgtataata ccttactata 60
 ccttatcata gtgattcacc ttaccatagt gaaccttaaa atagtatact tctggccagg 120
 cgcggtggct tacgcctgta atcccaacac tttgggaggg agaggtgggc cgaacctcga 180
 g 181

<210> 747
 <211> 694
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (35)

<400> 747
 gaattcgcgg ccgcgtcgac ataaaaagaa aagtnagggg ggtattgaaa tcgttaaaga 60
 gaaaacaact aggagcaagt caaaggagag gaaaaaatct aaaagcccat ccaaaagaag 120
 taagtctcaa gatcaagcaa ggaaatcaaa atccccctacc cttagaaggc gatctcaaga 180
 gaaaattggt aaggccagat ctctactga tgataagggt aaaattgaag ataaaagtaa 240
 atcaaaaagat agggaaaaat ccccaattat aaatgaaagt agaagtcgag atcgaggtaa 300
 aaaatccaga tccccagttg atttaagagg taaatccaaa gacagaaggc caggtccaa 360
 agagagaaaa tcaaaacggc ctgaaactga taaagaaaag aagccaatta aatctccctc 420
 taaagatgct tcatctggga aagaaaatag gtcaccagc agaagacctg gtcgtagtcc 480
 taaaagaaga agtttgtctc caaaaccagc tgataaatca agaagaagca ggtctccact 540
 ttgtaatgat agaagatcta agcagagcaa atccccctcg cggacactgt ctctggggag 600
 aagagccaag agccgatcct tagaaagaaa acgacgagaa ccagagagga gacgactttc 660
 ttctccaaga tccccctaag aacacgacct cgag 694

<210> 748
 <211> 714
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (672)

<400> 748
 gaattcgcgg ccgcgtcgac cataaagtta attctcataa tttttgctgg gtttaataat 60
 tcaaaatatg aatcaaaatt ttattttatg cagtttcatt ctattaaaat tatctgctaa 120
 attaatatta agtagtcta tagcatatat tatttaataa ttgcaagtag tgacatatca 180
 taaataaact gtataatatg tattattgat tctgttattt tatttttcct agcaatgcac 240
 agggaaaccag taaatttcac aagcagagaa tactaacttg tcatttattt aatattctaa 300
 acaaatgaag ccgcctctat aagtgaattt tctggacttc taaagatgag cattgttgag 360
 tttaataact caaattttta ttgtgttaag taaagtatat taaatataac ctccacctaa 420
 tgactcagct gtaattaaaa aagaattcac gaccagcctg ggtaacacgg tgagacccca 480
 tctctacaaa aataaaaaat aaaaatgaaa attaaaaaaa attagccagg catgggtggca 540
 tataccaag tactctgaag gccgagggg gaggattgct caaacctagg agtccaaggc 600
 tgtagtgacc tgtgatagtg ccactgtact ccagcctggg aaacagagca agacctgtc 660
 tcttaaaaaa cnacaacaaa cctacacatg aaaattattg ctgcttcctc cgag 714

<210> 749
 <211> 466
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (25)

<220>
 <221> unsure
 <222> (230)

<400> 749
 gaattcgcgg ccgcgtcgac gtgtnggaga aaaaactgct gagaagccaa agaaactgcc 60
 accacagggg agacagagtt tgttgttcaa atcccaccaa gtagaggagg gcttggtaaa 120
 caccttgggt tttccactga aacttcaaaa agatgggtca tgcttttagaa gtaaagattg 180
 agtttaaatt aaggacagaa aatatattgat tggatttgcc tttttgacn actcaggaac 240
 aatttcgggt taggaatggg tatgggagag agagagaaga gcaggctaac gaaatagcaa 300
 acaactcttg agagagtctg ttgtatggag aaatagggtt gtatttggat ggggaagttt 360
 tgtttcttag gatggaagac actagaagcaa gtctgttttt tgggtttttt ttgagatgga 420
 gttttgcttt gttgcccgag ctggtgtgca gtggtgcaat ctcgag 466

<210> 750
 <211> 602
 <212> DNA
 <213> Homo sapiens

<400> 750
 gaattcgcgg ccgcgtcgac agtaacactt aactcttcta taagtaatag aatctattta 60
 gttttgaaga gtagtggata gattgcaagc tcattaccta gtttcacttt caaccagaac 120
 tggaagaaat attaagtggg acaattacac taaaaatatg caaagtatac attttaagta 180
 ttttatgttc cagaacagct gccacatgtg atactataat caatctaata gaaataaaag 240
 tccacctctt cttagaacat aggttctcca ctggaggcag ttttgcctcc cagggggatg 300
 ttgacaatgt ctggacacat ttttggtttt cacagcgggg ggagagaggg actgtgtgcc 360
 attggcctct agtggataga ggccggggat gttgctaacc atcctacaat gcagagaatc 420
 acccactgac gacaatgaat ttttctgtcc aaaacgttaa cagtaccaag attttggaac 480
 cctaccttaa gagtatacat aaggtaatgc ttttctaaaa ggtctgtgtt agagttgcat 540
 atgtatccag caacatgtga gccctaggac agggccttgc ccataatacc cctcactcg 600
 ag 602

<210> 751
 <211> 353
 <212> DNA
 <213> Homo sapiens

<400> 751
 gaattcgcgg ccgcgtcgac gattaaagga tttacctgaa gagaaagcat tctattcacc 60
 agagactgga caagagttac tcttgcatgt ggcaattaaa gatgatgttt ccatggaaac 120
 agttgatcct gctttcattc attggctgct taggaggtga gcttctctta caaggccctg 180
 tattttatcaa agaaccagc aacagcattt tccctgttgg ttcagaagat aaaaaataa 240
 ctttgcattg tgaagcaaga ggcaatccat cacctcatta cagatggcag ctgaatggaa 300
 gtgatattga tatgagtatg gaacatcgtt ataagttgaa tggaggactc gag 353

<210> 752
 <211> 265
 <212> DNA
 <213> Homo sapiens

<400> 752

```

gaattcgcgg cgcgctcgac ggggcaggga taaattcgta aaaataaaaag aaatctttat 60
taaaacccaaa tgccatggaa attttttaga gaattctcat agttatacta aacctgagga 120
aaaataacat aatattgact gtttaaagag aactctgttt tcaagcctgt aaaactaatt 180
gatataattt tctacctaga atttagatat tatgaaattt ttttttgta ttgttttttt 240
ctttaggatc acagtatcac tcgag                                     265

```

<210> 753

<211> 589

<212> DNA

<213> Homo sapiens

<400> 753

```

gaattcgcgg cgcgctcgac cactttacct gtctgtaaga tggacatggt taggtctacc 60
catgaggggt atgtggggat tggagaaaat ggaagtaaag aactagtcca gagccaccct 120
tggtgaaaag ccactgtcat catcatttac catcgtcatt ctccatccca gccatccacc 180
caccaccgc cagcgtgctc ttcctctgtg accgatgtct cccgtgtagc catgaacctg 240
catgctcagg atgcagacga cggtttgga agaggggtgcg tgactgccgt gtgggactgc 300
atgtcagctt cccatgaagg ggcaccttgg gtgagctcac tgtttcctaa cggcatctgg 360
cattttctcc tttccattt gaccatgtca gttatcacca tcctacacga ctgctcactt 420
catttaaaaa aaccagttt gctttttttt aaacctttta tgtattctaa gtgatagaag 480
gtatggctt ggtctacgat atgtttttta tttttcttga aatacataaa tattaaaata 540
aaattgtgct atgtttccaa ctaagatcat cttgaatctc accctcgag 589

```

<210> 754

<211> 360

<212> DNA

<213> Homo sapiens

<400> 754

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gaattcgcgg cgcgctcgac taagtacagc aaaaaagaaa gggggggaag aaaagaagaa 60
ggaagaggaa agggaggagg aggatattatc attcacttac actagaaaca gtgaaaatag 120
ataatagcta taatttactc acatcttatac taaaacacaa attcagggtta atttatgagc 180
aagtcatatt cgggtgggtc ttcgatagtg tgtgaatttg gaatgaatgc tggacttcc 240
agctcccttc cactgcagc accaggaagc cattgttgtg gggaggccac caacttggt 300
ggcatgttgc tctgcctca gttagtgatg atggtgattt ggagagaaag gacactcgag 360

```

<210> 755

<211> 536

<212> DNA

<213> Homo sapiens

<400> 755

```

gaattcgcgg cgcgctcgac gttgggatat ggggtggttg actaaagaat gggtccttct 60
tctaattcgc caaatttttc atccagatta tggcatgttt acatatacaca aggattcaca 120
ctgccattgg tttagcagct ttaaagtga taactattct gaattccgat tggttggaat 180
tcttatggga ctagctgttt ataacagcat caccttggat attcgtttcc ctccctgctg 240
ttacaagaaa ttattgagcc ctcccatcat tcctagtgat caaaatatac cagtaggcat 300
ctgcaatgtt accgtggacg acttatgtca aattatgcct gagttggccc atggattaag 360
tgaactctta tcacatgaag gcaatgtcga agaagatttc gattcaacat ttcagggttt 420
tcaagaagaa tttggaacaa tcaagtccca taatttaaag cccggtggtg ataaaatttc 480
agttaccaat caaaatagaa aagaatatgt acagctttat accgacttcc ctcgag 536

```

<210> 756

<211> 388

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (192)

<400> 756

gaattcgcgg ccgcgtcgac cgaagggtgga ggtggaagac cagggatgca cagctcagaa 60
 ggcaccaccc gtggtggggg gaagatgtcc ccctacacca actgctatgc ccagcgctac 120
 taccctatgc cagaagagcc cttctgcaca gaactcaacg ctgaggagca ggccctgaag 180
 gagaaggaag gngaagggaa gctggacca gctgaccac gccgaaaagg tggccttgta 240
 ccggctccag ttcaatgaga cctttgcgga gatgaaccgt cgctccaatg agtgggaagac 300
 agtgatgggt tgtgtcttct tcttcattgg attcgcagct ctggtgattt ggtggcagcg 360
 ggtctacgta tttcctccaa agctcgag 388

<210> 757

<211> 259

<212> DNA

<213> Homo sapiens

<400> 757

gaattcgcgg ccgcgtcgac cttagcactt caatttaaaa acatagaggt ggaatttta 60
 atgttatttt gagttgactt tggcaggctg aaagaaagta aattaaaaaa aaaaacaaaa 120
 acctagagct gttgctctcg gagataagct ctgggaaaac ttatcttagt acctcatgct 180
 atttttaaaa cagtacattt atttttgcca gctgataccc ttctgtgagg agttgaattt 240
 gaagaccact gggctcgag 259

<210> 758

<211> 258

<212> DNA

<213> Homo sapiens

<400> 758

gaattcgcgg ccgcgtcgac gtcaccacgc ccagcccaag aaagatacat ttttaaaaac 60
 agctttattg tgggtataatt gacgtaaaat gtacatactt aaagtataca gtgtgatgtt 120
 ttgatataata tgtatactct tgaaaccacc accacagtta aaataatgaa aatgtccatt 180
 acctccagaa gtttcttcat gttttgttgt aatctctcct tctctcctcct gattcctccc 240
 catccccagg cactcgag 258

<210> 759

<211> 177

<212> DNA

<213> Homo sapiens

<400> 759

gaattcgcgg ccgcgtcgac agtattttaca gtttgactga cattgcttgg ctgcccataa 60
 taaagtgttt tgcctgggtg ctattgaaatg ctttttaact tagtttttag acaattttgc 120
 aggttttatt taagcatgtt gtatttttga ctgaggcaag tctttgcgga actcgag 177

<210> 760

<211> 166

<212> DNA

<213> Homo sapiens

<400> 760

gaattcgcgg ccgcgtcgac tgtaaatctt gtaattaatg gtcaaactgt ataaagggat 60
 tggtagtcaa aacatgtaca aagaaatacc tgtaaaactg ttttgtctca tgttttattg 120
 gaccaaagtt gtggtttgta tggagtgtag tagtagtgga ctcgag 166

<210> 761

<211> 208

<212> DNA

<213> Homo sapiens

<400> 761

gaattcgcgg ccgcgtcgac accaaatcac gggactgttc agcacaaga aactgaactt 60

gccaatgttt acagtcttga gaagggtctc catcctgttt acaatgtttg ctgaaggagt 120
tttactcaag aagacttttt cttgggggtat taaaatgact gtatttgcaa tgattattgg 180
agcctttgta gctgccagct ccctcgag 208

<210> 762
<211> 289
<212> DNA
<213> Homo sapiens

<400> 762
gaattcgcgg ccgcgctcgac aaacatactt gtttttaact ctcaggaatt tcatgaggaa 60
caagtttaag ttttatatat atctatgtat gcttttcata aaccacaaat aagtttatac 120
acttttagctg gaacttttta taatttcaga ggggttattg aactgactgt tggcattgga 180
tataagaatt tggcttcagg catttgctat tgagggttta aaaatgttta aatatcttac 240
tgtaattttt ttgttttggt atttgggaca atgcagctgt aatctcgag 289

<210> 763
<211> 207
<212> DNA
<213> Homo sapiens

<400> 763
gaattcgcgg ccgcgctcgac gaacagttag tagtagggct aagatttggt ttcagatttt 60
attttccaaact agaagacca ttttaacact gtttttggtta ttgtttgtag agagctttct 120
aaataagtgg gtacctttat tatgattaag aaagtaattg actatttggt aggatttcac 180
acagaattat tgataagcac gctcgag 207

<210> 764
<211> 358
<212> DNA
<213> Homo sapiens

<400> 764
gaattcgcgg ccgcgctcgac gagaaggagg ggaacaagca gagactttta ctgggacaag 60
taaatcaagc cttcagcaac tcaaggaaca aacatacaag acaagctcaa ctccctcgta 120
agaccaaatt aggataacac tacaagaaa taaattgttt tatctggttg tggtgctttg 180
gggatatgta attgactact caaataacaa ctttgatagt atatgaactg tgactgtgtt 240
agtaggtttt aattagcagg aactttttgt aaattggaca aaaacttttt ttattatgac 300
taggaaaact gctgttttct atttttgttt tgctctttta aataataccg aactcgag 358

<210> 765
<211> 178
<212> DNA
<213> Homo sapiens

<400> 765
gaattcgcgg ccgcgctcgac ctactgtttt ctgtgttata ctttgtgtta gtgcagagtg 60
tttgggtgtaa ctggctatcc ttttggatc tttttgttat ttaataattt ttaattgttt 120
acacattttt agaaagtatt cgtttccgta taggatgatt gtatgggtct ttctcgag 178

<210> 766
<211> 103
<212> DNA
<213> Homo sapiens

<400> 766
gaattcgcgg ccgcgctcgac ttgaattcta gacctgcctc gagttgccta ctgattttcaa 60
gtattacatg aagcttgtaa aaataacaag cagttacctc gag 103

<210> 767
<211> 407

<212> DNA

<213> Homo sapiens

<400> 767

```

gaattcgcgg ccgcgctcgac ggcaagtctt aaaaactcga tttttatatt tatttgatt 60
tacttatatt gtttatattat ttgagacaga gcaagactcc gtctcaaaaa aaaagcaaaa 120
caaaaaacaa aaccaaaaca aaagagggtc aggccagaat tgtccccgtg gacatagttg 180
gtcaattaga ttgcataact taatccagcc tcagttgggtg tgtctgggtt ttctggctag 240
gaagaatgct gctgtggaat gtgctggaac agatccttac gtgcgctgtg ttggagtctt 300
tccaggtcag gggttctcaa acggatttca ggacccttta catcatccag aatgatccaa 360
tagccccagg agcctgtgtc tgtgtggatt atatctgccg gctcgag 407

```

<210> 768

<211> 268

<212> DNA

<213> Homo sapiens

<400> 768

```

gaattcgcgg ccgcgctcgac gttcattgag gtttaagaga ataaaagaaa ccaaaaaaga 60
atttcacaat tctcccaaaa caatgaacaa aacaaaccaa gtgtatgcag caaatgagga 120
tcataactct cagttttatt atgattattc atcctcagat gagagtttat ccgtcagcca 180
cttcagtttc tctaaacaga gccacagacc aagaactata agagacagaa ctagtttttc 240
ttcaaaattg cctagccata aactcgag 268

```

<210> 769

<211> 372

<212> DNA

<213> Homo sapiens

<400> 769

```

gaattcgcgg ccgcgctcgac aaattactta taaatttttt atagttgtat ttttgacctg 60
ccttttataat gtatgaatat ttcatagttt tgcatacag atgtaggcat acagacaaat 120
acataaacca atgaatataat tacataattc gtgttccaat aaaactttat ttatggacac 180
taaaatttga atttcataaa attttcccat gtcaagaata caaaatactt gagttttgtt 240
tttagctatt taataatagg tctcatttat tccacaggct gtagtttgta gtcttgcttg 300
aaacaataga aacagactga ttaagcagga gaagtttttt gaaagaattt tgtttggctc 360
agcaatctcg ag 372

```

<210> 770

<211> 126

<212> DNA

<213> Homo sapiens

<400> 770

```

gaattcggcc aaagaggcct agggggtaat ttacatatgg ggtgtatata ttctaaaaat 60
agtaataaaa gtacctttta taagcaatgt tgtgtggcct gtagaagaaa gcaggaggga 120
ctcgag 126

```

<210> 771

<211> 311

<212> DNA

<213> Homo sapiens

<400> 771

```

gaattcggcc aaagaggcct agtagaactc aagaagacag actaccaagg gtcactctgaa 60
gtcgtgattg ggtcactaat aacaccagga caaagttaag ggatcactac tcaagcataa 120
gccccagttt tcataagact gctgtgaaga tgtttgatat aaaggcttgg gctgagtatg 180
ttgtggaatg ggctgcaaaag gaccctatg gcttccttac aaccgttatt ttggccctta 240
ctccactgtt cctagcaagt gctgtactgt cttggaaatt ggccaagatg attgaggccg 300
ggaaactcga g 311

```

<210> 772
 <211> 185
 <212> DNA
 <213> Homo sapiens

<400> 772
 gaattcggcc aaagaggcct aaagtcaaga acagtttttc actgcagctt ttagatata 60
 tttgtgcata tactgtttac acaattgcc aattttgtgt tgtgcatttt 120
 attttcctcc tttaatgtac tgctctgcaa ttatgcttgt aaaatgtttt tctgttcac 180
 tcgag 185

<210> 773
 <211> 262
 <212> DNA
 <213> Homo sapiens

<400> 773
 gaattcggcc aaagaggcct atggtgaccc agccagataa tagtatcttg agcaaataat 60
 agtatcttga gtgcaaataa gcaggaagac tgtccttcaa aaaatgtggg gttacatgat 120
 tttcagagcc tttttttcag agttgagcat cttttctttt aaaagaaata aggggcaaga 180
 ggaccaattt tattccttga ggaaaaatga cacacccttc tcccaaaaga aagaaaactc 240
 tctggccccc ccccttctcg ag 262

<210> 774
 <211> 430
 <212> DNA
 <213> Homo sapiens

<400> 774
 gaattcggcc aaagaggcct acacagactc ttgcaagctg gatgccctct gtggatgaaa 60
 gatgtatcat ggaatgaacc cgagcaatgg agatggattt ctagagcagc agcagcagca 120
 gcagcaacct cagtcccccc agagactctt ggccgtgac cgtgtggttc agctggcgct 180
 gtgcttcggc cctgcacagc tcacgggcgg gtctgatgac cttcaagtgt gtgctgaccc 240
 cggcattccc gagaatggct tcaggacccc cagcggaggg gttttctttg aaggctctgt 300
 agcccgattt cactgccaag acggattcaa gctgaagggc gctacaaaga gactgtgttt 360
 gaagcatttt aatggaaccc taggctggat cccaagtgat aattccatct gtgtgcaaga 420
 agatctcgag 430

<210> 775
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 775
 gaattcggcc aaagaggcct atagagacat gaagaggctt gaagaaaagg acaaggaaa 60
 aaaaaacgta aagggtattc gagatgacat tgaagaggaa gatgaccaag aagcttattt 120
 tcgatacatg gcagaaaacc caactgctgg tgtggttcag gaggaagagg aagacaatct 180
 agaatatgat agtgacggaa atccaattgc agttctccct ata 223

<210> 776
 <211> 243
 <212> DNA
 <213> Homo sapiens

<400> 776
 gaattcggcc aaagaggcct aaagattcga acaatgagtt taccagctct gagaaaaatg 60
 aactgctcca gaaccttcaa gaatgtttct ctgtatcacg cccacatcac accgaatcca 120
 tttgtcgta ttgcagagtt catctttctg gttttgagca ccattctaca cagttctttg 180
 tctttttcca gtctgtgtt gactgggtta gctcagcccg aaaggtgccc ccaactccctc 240
 gag 243

<210> 777
 <211> 249
 <212> DNA
 <213> Homo sapiens

<400> 777
 gaattcggcc aaagaggcct agagcaagga ggtactctga gagctctggt ttgcagaaag 60
 agagaaaaga caggatagat gaagagtagc caaaactccg tagaactggg gggagttact 120
 gagcagacag gatggcatca cagagtgtgc catggtgggg taggagggcg gccaacaggg 180
 acagaggagg gtcctctgcc agggagagaa acagagggaa tttgggggaa accagttgca 240
 gatctcgag 249

<210> 778
 <211> 287
 <212> DNA
 <213> Homo sapiens

<400> 778
 gaattcggcc aaagaggcct acaaaaacca caaaagtgtc tacaagtctc ctggcatatc 60
 tctattttca gacctgaat ctgcagtagc aacctgtttt ctccaccagc ctagggttca 120
 taatcttatc tgcctgcatg gaccagaaa taaatcagag tacagcccca cctggggccac 180
 tatctatagg acaaaaccagt ccttccacct gcatttcaact ctctccaacc cagggacttt 240
 gttttctttt aacttttatt tttggttggt tcaggggtat actcgag 287

<210> 779
 <211> 314
 <212> DNA
 <213> Homo sapiens

<400> 779
 gaattcggcc aaagaggcct actttcataa atagaatttt catttttata aaattcaatt 60
 tataattttt tatggtttct ctttattaat cccattttaag aaatctttgt gccatgatta 120
 tgaagatgca ctctaagtgt tttttccaga agctctgtag gtttagcttt tacctttctg 180
 ggttttgttt gttttgtttt tttgagatgg agtcccaact gtgtcaccca ggtggagta 240
 caatgggtgca atctcggttc actgcaacct ccacctcccg ggttcaagca attcccctgt 300
 ctcacactct cgag 314

<210> 780
 <211> 502
 <212> DNA
 <213> Homo sapiens

<400> 780
 gaattcgcgg ccgcgtcgac cggagcagcg cctatttagt tcatcctcac cgtcacggcc 60
 ggcgcctcct cctggattca ttcactcgct cttttcattc acgaaggtag tgaggcctag 120
 tggaaaagcca tggagagcgc tctccccgcc gccggcttcc tgtactgggt cggcgcgggc 180
 accgtggcct acctagccct gcgtatttct tactcgctct tcacggccct ccgggtcttg 240
 ggagtgggga atgaggcggg ggtcggcccg gggctcggag agtgggcagt tgtcacaggt 300
 agtactgatg gaattggaaa atcatatgca gaagagttag caaagcatgg aatgaaggtt 360
 gtccttatca gcagatcaaa ggataaactt gaccaggttt ccagtgaat aaaagaaaaa 420
 ttcaaagtgg agacaagaac cattgctgtt gactttgcat cagaagatat ttatgataaa 480
 attaaaacag gcactactcg ag 502

<210> 781
 <211> 217
 <212> DNA
 <213> Homo sapiens

<400> 781
 gaattcggcc aaagaggcct agagagagag agagagctat taataaaaca gaggagtaca 60

```

ttttaccctt gcaattccag tcaatactgt ggtgtcattt cagccaacat accaacattc 120
agtcaaatcc caaagccaaa tggataattt cagatggaat ggagtttagac aggaactggc 180
ttccctttct cctgttacta tgaggacaac cctcgag 217

```

<210> 782

<211> 219

<212> DNA

<213> Homo sapiens

<400> 782

```

gaattcggcc aaagaggcct aggaatcatt gcttactggg tagagaattt ctgttcggga 60
tgaaaatttt tagaacaga tagtggcaat agttatataa cagtgtgaat gtaattaatg 120
ccactgaact gtacagttaa aaatgggttaa catggcaaac ttatatctat ttgcccacaa 180
ttaacaacaa caaaaaaagc atgggctatt agactcgag 219

```

<210> 783

<211> 257

<212> DNA

<213> Homo sapiens

<400> 783

```

gaattcggcc aaagaggcct aggggagcgt tgtgttccat gctgctgtcc aggcacccag 60
cggcatgagt agcctatgca accttttagag caaggcggtc gcggcttcgc atcccaacat 120
gggcactgta tgatgtcccg catcaggctt tcttatgtct gcctggagac cctaattatg 180
ggcggcataa tttgtccttg acggtctcat gcattttctg ggctgaatat ccggcaagca 240
ccaggggtta gctcgag 257

```

<210> 784

<211> 218

<212> DNA

<213> Homo sapiens

<400> 784

```

gaattcggcc aaagaggcct attggaaaat agctgtgctg tcagcttttt gaggggggga 60
tttgttttgg tcagtcagtt ttatcataaa tttggcattt ggggttaaac agcaacatgg 120
aacaaataat ttttagatgt tggaaattcc tggttttttt tgttttgttt tgttttgttt 180
ttttgagaca gcgtctttgt cacctgggcy ttctcgag 218

```

<210> 785

<211> 197

<212> DNA

<213> Homo sapiens

<400> 785

```

gaattcggcc aaagaggcct acttggtcca gcgagttgac tataattttt tctaccctgt 60
tatctacctc tagctccatt gaacatcttc cttctgttaa gtgatagcca taagttctta 120
gtagcgaat tattggatca aagagttaga caatttttat ggcactttta atgtgtgttt 180
tcaggcattg cctcgag 197

```

<210> 786

<211> 125

<212> DNA

<213> Homo sapiens

<400> 786

```

gaattcggcc aaagaggcct agtgccaaca aaatttaaat ttttctcatt aggattcaga 60
tttcagatta ggcaaacagt ttggttgatt ctgtgatgta tgtaaagggtt ggaagggtc 120
tcgag 125

```

<210> 787

<211> 204

<212> DNA

<213> Homo sapiens

<400> 787

```

gaattcggcc aaagaggcct agtgattata aaattccatt tgattctttg tttttctcaa 60
attgcataag cagtgaagtag gaagaagatg atgaaccaca ggaggagtag tcagaagggg 120
agaagaacga gaaaagtaat gtcacagact gtgagggaaa attatccaca aagatgggat 180
gttacagtgc cagatgagct cgag                                     204

```

<210> 788

<211> 493

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (18)

<220>

<221> unsure

<222> (181)

<400> 788

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gaattcgggc aaagaggncct accccagctg atcttgaact ccagagctca agtgatcctc 60
ctgtcttgcc cttccaaagt gcttgaatta caggcatggg ccacagtgcc cagctgggaa 120
tgatttttag acagcaatct tagtgctttg ttaatttttg ctttgcatct taaacatgtc 180
ntctctgttt ttttcattcc ctttaccatt tataattttc ttcattattt cactatgaac 240
taatgtaaac acaaaacatg ttcattcctt gaatgtaagc tacacactta aacctttttt 300
gatacacttc ccagtttatc tgatgccata tgaaaaaact tggattttat tccagatttc 360
tccatatctt gtctttctgt ggatggctca taaagtgtgc gtgtatgtgt gttgtgtttg 420
ctagatacat tataattatt gttatttatt tatttaaaga aaggatcttg ttctgttgca 480
gtggcatctc gag                                     493

```

<210> 789

<211> 151

<212> DNA

<213> Homo sapiens

<400> 789

```

gaattcggcc aaagaggcct acgattgaat tctagacctg cctcgagcta tgcgtttgta 60
tttcttgctc cagcctctga atgttatctt caagttgctt gactctgaac tcatcctctt 120
cagactgccg cctcctgact tccccctcga g                                     151

```

<210> 790

<211> 360

<212> DNA

<213> Homo sapiens

<400> 790

```

gattggctgt tagctttgag ctcagagaga aaaatacatt tagaagtttt tattgtgttt 60
tcttttagtta cgttagcgta gaataagggg acttaaaatt ggatcccttg aaattatatg 120
ttaattttta aaataagttt attaggtgga aggttctgta tcttttatca aaattgcaaa 180
ggagtctgtg aaataaaaag tactcagctt agattctaca gtatttcaaa ctgtcttttt 240
ggattttttt tttgagacag tcttgctctg ttgccaggc tagaggacaa gtagtgcggt 300
cttgactcac tgcaacctcc gcctcccatg ctcaagctat tattctcatg cctactcgag 360

```

<210> 791

<211> 281

<212> DNA

<213> Homo sapiens

<400> 791

gaattcggcc aaagaggcct agagggatgg agagagagat gaaggaactg cagacccagt 60
 acgatgcact gaagaagcag atggagggtta tggaaatgga ggtgatggag gcccgctctca 120
 tccgggcagc ggagatcaac ggggaagtgg atgatgatga tgcaggtggc gagtggcggc 180
 tgaagtatga gcgggctgtg cgggaggtgg acttcaccaa gaaacggctc cagcaggagt 240
 ttgaggacaa gctggagggtg gagcagcatg agcaactcga g 281

<210> 792

<211> 279

<212> DNA

<213> Homo sapiens

<400> 792

gaattcggcc aaagaggcct acaggtgact cgaatgaact ctgcattttc aacgtgcctt 60
 ctactgcttc aggacctggg ggtccccctg accctcactg gcttgcccc agccctgggc 120
 ctggccccac ctgtcctgga gccagagacc cctggcctgg agctgcctct ctgggggtgg 180
 tctcaggccc caccctccc tcttttgagt tcagtgcctt gctcagcccc tccccgtat 240
 ctcagcgtct tgagacctct gacagagcga caactcgag 279

<210> 793

<211> 326

<212> DNA

<213> Homo sapiens

<400> 793

gaattcggcc ccgcgtcgac ctaaaccgtc gattgaattc aaggcctacc tgggaagaag 60
 taaaagagca actagaaaag gaaaagaaag gctccaaggc tttggctgaa tttgaagaaa 120
 aaatgaatga gaactggaag aaagaactgg aaaaacacag agagaaattg ttaagtggaa 180
 gtgagagctc atccaaaaaa agacagagaa agaaaaaaga aaagaagaaa tctggtaggt 240
 attcatcttc ttcttcatca agctctgatt cttccagcag ttcttctgat tctgaagatg 300
 aggataagaa acaaggaaaa ctcgag 326

<210> 794

<211> 239

<212> DNA

<213> Homo sapiens

<400> 794

gaattcggcc ccgcgtcgac gacaccatgg ccaagctcat tcttgtcaca ggtctggcaa 60
 ttcttctgaa cgtacagctg ggatcttctt accagctgat gtgctactat accagttggg 120
 ctaaggacag gccaatagaa gggagtttca aacctggtaa tattgacccc tgcctgtgta 180
 ctcacctgat ctatgccttt gctggaatgc agaataatga gatcacttac acactcgag 239

<210> 795

<211> 100

<212> DNA

<213> Homo sapiens

<400> 795

gaattcggcc ccgcgtcgac attgaattct agacctgcct cgagtgaagt acccaatgag 60
 gaacctaaag ttgcaacagc ttatagacct caagctcgag 100

<210> 796

<211> 714

<212> DNA

<213> Homo sapiens

<400> 796

gaattcggcc ccgcgtcgac ctactagct aaaaaaatc cttggggctt ggagtcacat 60
 aaattatttt caatgcctgt tatttcactc ttgattttcc acaagatgac aagcctcttg 120

```

gagatacctc cttgtatcta ctttccaggt tattagatac attatattcc caggtacatt 180
atagtttccc agatacatgt atagctttcc cagatacgtt atttttccat tatatagcaa 240
aattttacat ctgtggatta gaaattaaat ttcacaaagc acctaagaaa gtcttaactg 300
ttctaaatct taagtgaata aagacctggc atgtgtttgt gttgtgtatg tctctctgtc 360
tctctgtgtg tgtgtgtgtg cgcgcgtgcg tgcgtgcgca ttggtatcag ttctgaaagt 420
gtatattggg gtctaagtta ggctcatgct ctcagaaatt tgatgcaaca tgcttgatt 480
attttgttca atatgagagt taaaaagtac attatagtgc tattttggaa aagaaagaaa 540
agcttttcag tagtaacctc acattttgca ttgtatatgt taccttttgc ttcttttct 600
tacacacgta tacaaaagta cataatgata atggtatcat tattgtgtt tttgttaacc 660
ctcatggatc actgtttccc aggttctctg ctaagtacca tacatgctct cgag 714

```

<210> 797

<211> 180

<212> DNA

<213> Homo sapiens

<400> 797

```

gaattcgcgg ccgcgtcgac gagggaggtg gtggtagtgt gtgtttaata tttctagtta 60
agctggtgag agaagagagg aggaaagggt tcctaaggaa gtagatagct gagttgagtc 120
attagagata aataagagct aatgagaaaa tatgtgggca gtatagtgtt gggactcgag 180

```

<210> 798

<211> 165

<212> DNA

<213> Homo sapiens

<400> 798

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gaattcgcgg ccgcgtcgac agggcatctt gatatgctgc tcagtctctg ccttcttctc 60
ttccagatac actgtgcaga tgaagtcacc ggcatgctgg gtcccactgg cagtgccagc 120
cacgcgcatac ttcacaatgg cagtgatctc ccccgcgtgc tcgag 165

```

<210> 799

<211> 422

<212> DNA

<213> Homo sapiens

<400> 799

```

gaattcgcgg ccgcgtcgac gaattctttt taaattttat tctggttggg attggctggg 60
cttctgaaat cttgtggatt tttatctttc taagtttggg aaaatttttt cagccatttt 120
cttaaaatac agcttttccc catttctcct tcttccctga gactacattt aaatatatgt 180
tagactttct cactatattt acttctggtt tctttttgta tttaccaacc ttttttctt 240
gtttgttgaa acaaggcttg gctctgttgc ccaggctgga atgtagcggg atgatcgtgg 300
ttcactgcaa cctctgcctc ctgggctcaa tcgatcctcc cacctcagcc tcccaagtta 360
gctcgcatga catgccacca ttcttggtta gtttttgat cttttctaga gacagactcg 420
ag 422

```

<210> 800

<211> 329

<212> DNA

<213> Homo sapiens

<400> 800

```

gaattcgcgg ccgcgtcgac ccccaggct caagcaatcc tccattttca gcctcccggtg 60
tagctgggac cacaggcatg tgccaccaca ccttgctaag ttttgtttt tgttgtttg 120
tttgtttgt agagaaagg ttttgccatg ttgtccagat tggctctcaa ttcttgact 180
caagcaattt gccaccttg gcctctcaaa ccgctgggat tgcacgcatg aaccacctca 240
accagccata tttgtttct attataaatg atgagattaa gcgttcagac tgctgtttgc 300
aaacagtttt cacaatggtt acactcgag 329

```

<210> 801

<211> 436
 <212> DNA
 <213> Homo sapiens

<400> 801
 gaattcgcgg ccgcgtcgac gtagaacagt gattactgga ggctgggagg aaagggaggt 60
 ggatatggag aggttggtta acagatacaa aattacggct agataaaagg aataagttct 120
 agtgtctgtg gcaactgtagg gcgactagag ggtgtagtta acaatttact gtatattttc 180
 aaatagctag aagacaggat ttctaacttc cccaacacaa agaaatgata aatgtttgag 240
 gtgattaccc tgatttgatc attacacact gtatacctat atcagaatat cacactgtac 300
 cccataaata tatacaatta cctatcagtt ttaataaat aaattttcaa aaaccacaat 360
 atttttttga atgagactct acctaaaatt ttattatgtt ctctctttat ggcctttttt 420
 tgggaaaaca ctcgag 436

<210> 802
 <211> 725
 <212> DNA
 <213> Homo sapiens

<400> 802
 gaattcgcgg ccgcgtcgac atgcacttta ggtttgtttt tgcacttctg atagtatctt 60
 tcaaccacga tgttctgggc aagaatttga aatacaggat ttatgaggaa cagaggggtg 120
 gatcagtaat tgcaagacta tcagaggatg tggctgatgt tttattgaag cttcctaate 180
 cttctactgt tcgatttcga gccatgcaga ggggaaattc tcctctactt gtagtaaacg 240
 aggataatgg ggaatcagc ataggggcta caattgaccg tgaacaactg tgccagaaaa 300
 acttgaactg ttccatagag ttgatgtga tcactctacc cacagagcat ctgcagcttt 360
 tccatattga agttgaagtg ctggatatta atgacaattc tccccagttt tcaagatctc 420
 tcatacctat tgagatatct gagagtgcag cagttgggac tcgcattccc ctggacagtg 480
 catttgatcc agatgttggg gaaaattccc tccacacata ctgcctctct gccaatgatt 540
 tttttaatat cgaggttcgg accaggactg atggagccaa gtatgcagaa ctcatagtgg 600
 tcagagagtt agatcgggag ctgaagtcaa ggtacgagct tcagctcact gcctcagaca 660
 tgggagtacc tcagaggtct ggctcatcca tactaaaaat aagcatttca gactccaacc 720
 tcgag 725

<210> 803
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 803
 gaattcgcgg ccgcgtcgac ttctaaaatt ttatataaat agaatcatat agtaagtact 60
 tctgttgctt ggctcctatt actcagagta attgttgata tttatccatg gtgaagcatg 120
 tgcagagtt tatccctttt tattgctaag cagtgttcca ttgtgtatct gttttactac 180
 agtttgcca ttacactgtt ggtggaccct gggttgtttc tggttttggg ctctacacct 240
 agaagctcct atgaacattt gtgtacaagt tttggtattg ttaaagttaa actcgag 297

<210> 804
 <211> 701
 <212> DNA
 <213> Homo sapiens

<400> 804
 gaattcgcgg ccgcgtcgac aaaagggtaa gtataagaaa atattgcaaa cacattaaaa 60
 cagttgtatg gtgcaggaaa agaagattgg aaaaagacca aaacacactt ctccagcaac 120
 actccatcag ctttttaaaa tttagagcta tctgctaatt tttccctctc tcttctcaca 180
 taaatgaaac aaacactggg cagctgcagg tttctcccaa tcatgtctct ttatgtaaag 240
 acagtaacat gcaaacactt ttagtttaca tccctcattc acagtgtaaa gcaggaaatg 300
 gtgtgggaga tgtgagacca ttctgaggtc agcgatagcc caaaggctct gcagtattcc 360
 ctccaatggc caaggattcc gtgtgtcatt tgcaggagtg agtaggcctg ctgtatttct 420
 tgtaactgct ggggtgttaca aaataagtta caatgtttta cactttaaaa aaaaaacaga 480
 aggaacattt gctttattgg ttacttacta gtttagcctc taggttatgg cacagcatgc 540

taaaaaatca tgtgttttaa agtaaatgtt ggtaaatgc tggcatctgg tcctattgtg 600
 ttgatgcatt ttcacttctg tggcataggg aaatggactg gtctaaagag agtgaggcac 660
 aacacaagca gggcattagt ttgaatagga agtctctcga g 701

<210> 805
 <211> 269
 <212> DNA
 <213> Homo sapiens

<400> 805
 gaattcgagg ccgcgtcgac ccaaccgtcg attgaattct agacctgcac tccagcctgg 60
 ggcagacagaac aagactccgt ctcgaaaaaa ataaaaataa ataatatag 120
 tgtagtatca aaggaaaaca gcaaaacttt aaatatttgc ttgaaaatt aactgttttg 180
 taggttaaga gcacagtgtc gcagctttgg acttaacata attaatcag atgttagcca 240
 tacatacctt ttccatctgc cttctcgag 269

<210> 806
 <211> 259
 <212> DNA
 <213> Homo sapiens

<400> 806
 gaattcgagg ccgcgtcgac cgctcgattga attctagacc tgcctcgagt gttgtgtggc 60
 catgggggat aggaggttgg ctgttatcgg cctctgctcc tgggggtttt actccttctt 120
 ggcctacctg ctgctcttcc agtctccatt cccacctttt tctcctctc gcagccactg 180
 tttgatgctg gactgcagga aaatagtcac cgatgcagga gtgtccaggc agtgttccca 240
 ccaacagtac actctcgag 259

<210> 807
 <211> 216
 <212> DNA
 <213> Homo sapiens

<400> 807
 gaattcgagg ccgcgtcgac ggacagggga ctgggcagaa aataatattg tagaaggtag 60
 aacagcattt ctttgggagg atttatcttt ttaagtatat agtggcttc taccactatc 120
 ctacaacagg ttgcaggaca aataatgtat tttaatcttt gggggagtct ttgtgtaagt 180
 cagaccttat tcattttcat tccaacaacc ctcgag 216

<210> 808
 <211> 705
 <212> DNA
 <213> Homo sapiens

<400> 808
 gaattcgagg ccgcgtcgac acctgcctct aaataaataa ataaataaat aaataaaaat 60
 aaaggcaaat ctgatcaagt catgctctgg gataaaagct ctaaaggctt caccctttgc 120
 tttaggagaa tgcttgcccc agcctggaag atccgggcct ttccctctcc ccaagcctt 180
 ctctccctagt ccaccccttc cactgtatc ctcccacaga tcaactgaga tataaatata 240
 actctccacc taaaaatatt acgggttagaa gtaacactga ggatggctag aaatggatat 300
 aagaaaaactc attattgact aaaatgcaca aaagaatcaa atcttgacca cgaatctttt 360
 tttttggttt taatttaaat cttccaaaat ggaatggggt taccagtcata atcacacaat 420
 ggcagaaaact cgtgtcaaga gcctgcagcc cccacactga tggatgcctc caatctcagc 480
 agcagaatgt gtacggaatc gatgccgatg aaaacagttt cagtaaaatt acaaaagaat 540
 gaaaaacatg gacatttgtt taactgtact acaggggaaa aacaaaaatc tgatcaaaga 600
 attaatgttg atgaatagag ttcaagctgg agaacacctt cttaaaacat tttcaggggt 660
 agtatgtttt ggttttaaat gtttgcattc aaggttctcc ctata 705

<210> 809
 <211> 230

<212> DNA

<213> Homo sapiens

<400> 809

```

gaattcgcgg ccgcgtcgac gtgagctaaa gcagtcaatt ttttcatgga gcaccacgaa 60
agaacaaaag acatataaat tatggttatg caaagtaaaa tatacaacat tttcttttct 120
ctcctttttt tttttttttt tttgagacag gtcttgctct gtcacccagg ctgcagtgca 180
gtggtggtgc catcactgct caacacagct tctatctccc aggactcgag 230

```

<210> 810

<211> 544

<212> DNA

<213> Homo sapiens

<400> 810

```

gaattcgcgg ccgcgtcgac cgctcattga attctagacc agcccgccca acacagcgaa 60
accccgcttc caccaaaaaa atacaaaaac cagtcaggcg tggcggcgcg cgcctgcaat 120
tgcaggcact ccgcaggctg aggcgggaga atcaggcagg gaggttgag tgagccgaga 180
tggcagcagt atagtccagc ttcggctcgg catgagaggg agactgtgga aagagagggga 240
gagggagacc atggggagag ggagagggag agggagaggg agaggaccgt ctgctttaa 300
aatgggaaat atcagtattt gagggcaatga agtcaaaatt gacctaatga gatgttgata 360
cgattctttt cctgaagctt taatacattt acatttttat ttttggaac tcactttcat 420
tctgtacatt tatactgtac ctattttgtg ttgtcagatg tacgtgtgtg agttactgat 480
tttcttcttc acacatggag acacttggca gccaatcagc ccaccaggaa ataggtcctt 540
cgag 544

```

<210> 811

<211> 714

<212> DNA

<213> Homo sapiens

<400> 811

```

gaattcgcgg ccgcgtcgac ccccaacctg cccgcattgc ctatatctca gacaagcacc 60
ctcgacaaac cttggaagtg attaaccttc tgagaaagca cggggagcta tgtgatgtgg 120
tgctagtgtg gggcgccaag aagatatatg cccatcgagt cattttgtca gcctgtagt 180
cctacttccg agctatgttt acaggagaat tggcagagag ccgtcagaca gaagttagta 240
tccgagacat tgacgagagg gctatggaat tactgattga ctttgcgtat acctcccaga 300
taacagtaga agagggcaat gttcagaact cttctgccag ctgcttgcct cctccagctg 360
gcagaaatac aggaagcctg ctgtgaattc ttaaagagac aattgatatc ttctaactgc 420
ctgggcattc gggcttttgc tgacacacat tcatgtcgtg agttgctaag gatagcagac 480
aagttcacc caccataactt tcaagaggta atggagagtg aagagtccat gttgcttcca 540
gccaatcaac tcattgatat aatatccagt gatgagctaa acgttcgcag tgaagaacaa 600
gtgttcaatg cagtgatggc ctgggtcaaa tacagtattc aggaagagc tcctcaatta 660
ccccaggtgc tgcagcatgt tcgtttgcct ttgcttagtc ccaagcccct cgag 714

```

<210> 812

<211> 309

<212> DNA

<213> Homo sapiens

<400> 812

```

gaattcgcgg ccgcgtcgac acagaaaagg gcttggttgg acaaatttac aagggttgtt 60
aaacatacaa agtgccaaaa gcctatagct attcattcta ttactgttg gcaggtaaat 120
atthttgtga aagtatttgt ttatttttat tttactttt tgagggtggag tctcgccctg 180
ttgcccaggc agcagtgcag tggcgcagtc tcggctcact acaacctctg cctcccgggc 240
ccgagtgatt ctctgtcttc agcctcccaa gtagctggga cttaaaggcat gcaccacat 300
cacctcgag 309

```

<210> 813

<211> 178

<212> DNA

<213> Homo sapiens

<400> 813

```

gaattcgcgg ccgcgtcgac gtcgattgaa ttctagacct gcctcgatga atcccgaac 60
ctttccaaac acgtctcatt tattagttct aatatctttt agtagattcc ttagtggttt 120
ttttgtttt ttgtttttt ttaataatat aaaggatcat gtcattcgca aactcgag 178

```

<210> 814

<211> 342

<212> DNA

<213> Homo sapiens

<400> 814

```

gaattcgcgg ccgcgtcgac aaccttcttt tgtttgtcag cagccaagggt gttccagga 60
agttcagaga gaacagaatt taagaagtgc aacatggcca ggggctgcct ctgctgcttg 120
aagtacatga tgttcctctt caatttgata ttctggctct gtggctgtgg gctgctggga 180
gtgggcatct ggctctcctg gtcccaaggc aactttgcca cttctcccc cagcttccct 240
tcgtgtctg cagccaacct ggtcatcgcc ataggcacca ttgtcatggt gacgggcttc 300
ctcggctgcc tgggggcat caaggaaaac aagttcctcg ag 342

```

<210> 815

<211> 668

<212> DNA

<213> Homo sapiens

<400> 815

```

gaattcgcgg ccgcgtcgac gtgtgccttt gctgttgaag agtccggaaa cttaatcaaa 60
aatagatgtg agggttctgc tgcactgtac tgggtgtcta aactatacta gacgtggggc 120
ttagaagagc tcccccttcc acatagaaaa gctctatggg gttggatcac tctctacaga 180
ttctcttttt gaatccatt ggctctccca gttgttctcg acacccatag ccacagagaa 240
ggagtcacaa agtgaagccc tcagcttctc cttctctaag ctctctgcag cctcagtggc 300
ctcatctgaa cagtgcagat gatagttacc acttcatagg gctgcctaga aaacaaaatc 360
cagtgtgttt caaatcacct catagcacat cgtagatgct caagaaagtt ggctgggtgt 420
actcacatc tgtgcagcc cctaggtgta ccccatctct gacagtcctc caactgttc 480
tctcctctgt ctttctccc ttctctctag ggtttgctga gagcagaggg agagaaaggg 540
tgggtgggtc gtaccccttg ctggctatga cagggtgcag tcatgggtgg aaaggagaca 600
gcatcactct taagcactct cctgagattc atgatggaca ctctccagc aacgcagggg 660
ccctcgag 668

```

<210> 816

<211> 344

<212> DNA

<213> Homo sapiens

<400> 816

```

gaattcgcgg ccgcgtcgac ggcagatggt gtgaagaggc attgtgagct aagtgtatag 60
gtgaggtgag ttaataaaag atgtaaatc tggcctaaaa tggtgaggcc tcatgggatg 120
caggaaaatt taattaagtg gccaccactc ttcccccat caattggatt ttcttctgcc 180
acagtaagaa gtcattccagg atatgctggg ggggcactta gatgagtctt ggtccgttga 240
gtgttttcat ttctgatata tctaattgcc agcgaggaa cttgaacgta agaaaatcat 300
gtgaaacttc atcaaaaatt aataatcacc aagcaggact cgag 344

```

<210> 817

<211> 163

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (135)

<400> 817

gaattcgcgg ccgcgtcgac gggggggcct ttattaatat tgccacacca caccacacca 60
cacacacaca ccacaccaca ccacaccgtt tgaaagctgc atcaagctgt gcacaaacat 120
gacgcagtg ctgtntttgt taagcctcgc cctccccctc gag 163

<210> 818

<211> 319

<212> DNA

<213> Homo sapiens

<400> 818

gaattcggcc aaagaggcct aaacaaggga tttgaacgtt ttccagcaca aaaggataac 60
ttccgagtggt tggctctgtac gcatactagc aaaggtaatg gtgatctagc aaacaaaatt 120
gggtttctgca gttagaagtg agcaggagca cttgtattat agtattttaa taatcctggt 180
taatctcttt ttaagccgag taacccctcc agattttgcc tttttattat tgaggctggc 240
tttattttct tctacttttt ttcccgcttt atagcagtta attatttttg tgattattat 300
gcaagaagca ttactcgag 319

<210> 819

<211> 393

<212> DNA

<213> Homo sapiens

<400> 819

gaattcggcc aaagaggcct acagagaact gaatagatga ggggtgttga aagaaacgtt 60
tttgggcatg gtgtaaaggc atgcttgagg gattctaagg aggcctggtgt gtggctggaa 120
ctaagtgtgg ggatgagagg tactaggaga tcacatgaga ccatgtaggc cactgttagc 180
agttagtaca atggtaaatg agtagaagga ttttgaacag caagattgct atgatcttac 240
ttaacactta taaaagagtc actcctatga cttttgtagg gtgagtaagc tataagtaata 300
tcaatagaaa tgaacatgct ttgcatttgc catgtgtcag gtattattat tattatttat 360
tttacttttt tttgagatag ggatccactc gag 393

<210> 820

<211> 270

<212> DNA

<213> Homo sapiens

<400> 820

gaattcgcgg ccgcgtcgac gaaggataag aacaggctcg agatgtccgc ccagagggtta 60
atttctaaca gaacctccca gcaatcgga tctaattctg attacacctg ggaatatgaa 120
tattatgaga ttggaccagt ttcttttgaa ggactgaagg ctcataaata ttccattgtg 180
attggatttt ggggttggtct tgcagtcttc gtgattttta tgttttttgt gctgaccttg 240
ctgaccaaga caggaacccc acacctcgag 270

<210> 821

<211> 163

<212> DNA

<213> Homo sapiens

<400> 821

gaattcgcgg ccgcgtcgac ctacatagtt ctttctgaat acaaatctca gataaaacac 60
tatctcagtg atcaaccagg ttaagcaacc tttttagtgc ctcaattatt ccatttgtaa 120
aattgtaata atgatagtac taacctataa gattattctc gag 163

<210> 822

<211> 200

<212> DNA

<213> Homo sapiens

<400> 822

gaattcgcg cgcgctcgac attagaagct ctagtgagtg aagtttggtt atactttgaa 60
 aatatactaa gatggaacca ttaaaaacag taataatctt tattatcttt catttggtca 120
 agaatgataa aaagcatcaa ctagaaggga aacttcaaga tatcagatgt cgattgacca 180
 cccaaaggca agatctcgag 200

<210> 823

<211> 284

<212> DNA

<213> Homo sapiens

<400> 823

gaattcgcg cgcgctcgac ccaatacaca ccacactgtc tacttcagtg gggaaatacc 60
 aaccctcctt caccaatcca gaaagaaatc tgtaatatga gattcctcga cagtgtagaa 120
 acctagtctt gtgtagtatg gttgttttgg acatttgtaa atttattttt aaagttttat 180
 ttgtatatat ctttttgaga caggattttg cctgtgcagc caggttgag tgcagtggtc 240
 tgatcatggc ccactgcagc ctcaatcccc caggctatct cgag 284

<210> 824

<211> 275

<212> DNA

<213> Homo sapiens

<400> 824

gaattcgcg cgcgctcgac tattgtggta ctgtttataa tttattgggtg ctcttaggac 60
 cttagtggga gttggctact ttttggttgc acactaagta gctccagact gttttaaaaa 120
 tgcttgcttc tgctgtatat aggtttttat ttatttggtt gtttttggtg ctgcttttgt 180
 ttcttcctt ggtgttggtg gacattttta actatcatag ataccctttt ctaaagcagt 240
 ttctatctcc tgggtccacc cccctccacc tcgag 275

<210> 825

<211> 256

<212> DNA

<213> Homo sapiens

<400> 825

gaattcgcg cgcgctcgac catctgggta ttgggaaca agtggtcatt gttacattca 60
 tctgtctaac ttaacaaaac tgttcacct gaaacaggca caggtgatgc attctcctgc 120
 tgttgcttct cagtgtcttc ttccaatat agatgtgggc atgtttgact tgtacagaat 180
 gttaatcata cagagaatcc ttgatggaat tatatatgtg tgttttactt ttgaatgta 240
 caaaaggaat ctcgag 256

<210> 826

<211> 276

<212> DNA

<213> Homo sapiens

<400> 826

gaattcgcg cgcgctcgac agagcttaaa ggctggatta tgcaaatact aacttttttt 60
 attttagtga aaacgattca aatttcaaca catttaataa taaatgagaa aatttcagta 120
 gataagcata gaacaaatgt aaaagaaacc ctcttcaacc aagattgtac tattgtatgt 180
 ggtctaaagt atagtaatag ttttactcag aatgggtgaat taaagatact gggagcttct 240
 gaaatgcac cttattccaaa aatgggggta ctcgag 276

<210> 827

<211> 169

<212> DNA

<213> Homo sapiens

<400> 827

gtccttgtgc tgaggagaag gatgtttatt ctgatatcca ttagatgaaa tgttctgtaa 60
 atatctatta ggtccatttg tgtacagta cagattaagt ttgatgttct tttttgattt 120
 tctgttattg gaagatctat ccaatgctga aagtggggcg agtctcgag 169

<210> 828
 <211> 172
 <212> DNA
 <213> Homo sapiens

<400> 828
 gaattcgcg cgcgctcgac catcaagtct acaagaaaat taaaggagtc ttgattaac 60
 agtggttttt caaacaacc tgtgtacaa ctcagtaagg aaaaagttca gaaaaaagc 120
 tacagaaaac tgaagactac ctttgtaaat gttactctcg aatgcgctcg ag 172

<210> 829
 <211> 385
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (251)

<220>
 <221> unsure
 <222> (264)

<220>
 <221> unsure
 <222> (274)

<400> 829
 gaattcgcg cgcgctcgac gctgctctga tgacttttaa aaactgattt gtagggatc 60
 tttgtgtaaa cactaatgct tgatctgata tatcaaattg tgtgaatgct taacagacca 120
 agcattagta ttcacacatt catgtgcatg tgtacatgtg tgtgtgtgtg tagtatctta 180
 tgcattcttac cctagaggat gccactcacg taactttatt tttattatgt atataataat 240
 cagggtacac natatctgtt ttntgaaaa gctnactaat acagcagaat ctatctactt 300
 tcatttcctt agtttgagg tgagtataca aaattcacaa tctctacttt gaataatctt 360
 gaataaaaac atgagattac tcgag 385

<210> 830
 <211> 246
 <212> DNA
 <213> Homo sapiens

<400> 830
 gaattcgcg cgcgctcgac tatcttaaac tctgaaata gatattctaa acaatttaaa 60
 attaaccttg ataacaaca gttcccacat cagcactggt cattggacca tacttgaggt 120
 tacattgctg tagtgtgaga ctttcatact ttttttaaaa ttgtcacctg tattaagaaa 180
 tacattttac attttcattc agtggtatat catatacaca tgtacataac tgaaacaata 240
 ctcgag 246

<210> 831
 <211> 323
 <212> DNA
 <213> Homo sapiens

<400> 831
 gaattcgcg cgcgctcgac ctcccttgct catttttaaa ttggattatt tgtctttaa 60
 ttttagatac taatccctta tcagatattt gatttgcaaa catttttctt tcttttagg 120

ttgccttttt attttgttgt ttgtttcctt tggcagctg aagcttttta gtttgagcta 180
 gtctcattta tttttacctt tgtagctaag ctttttgtgt attaccctaaa aaatcattgc 240
 caacaccaat gttgaggaac tttctccta tgttctcttc tagtttatgg ttttgggtct 300
 tatatttagg tcattcactc gag 323

<210> 832

<211> 343

<212> DNA

<213> Homo sapiens

<400> 832

gaattcgagg ccgcgtcgac gggagtcata tacagacttt tgtggatttc atgttaaaaa 60
 aaaaaaatca attgttataa gagaacacac tgttttgtaa aaaaaaaaaa tcttttttgt 120
 tgtgcatatg tatttacaca catatatcca tgtgtactcg gtctcaatat caaaatattt 180
 cttacagtta cttatggta aactggttga aatacttgta ttttaatttt ctgggtgtgc 240
 ttttcagaca ctctggaaag cagaactaag aaatgatttc tggggtatat ctaggaaatg 300
 tcacctcagt tatagcccag aaacaactgt ggcccgaactc gag 343

<210> 833

<211> 383

<212> DNA

<213> Homo sapiens

<400> 833

gaattcgagg ccgcgtcgac cttttaaaac gttgtccgca tttgtactca gtgggacaca 60
 tcttagggcc tgctgtatcc tgcaaagtat agaatactgg aatcagaagg aagctttctt 120
 tccccctac tgttttagtct ttttgggagg aaaaagaccc gaaatttggt gtcatttaga 180
 tgttcattaa cctgggtcgca ttcatacta gtccatttca gctccgagga tgtttaattt 240
 cagtcctctt ccaggtttgc atgcttcagt cctcttctgg gtttgcattc ttcagagggt 300
 ctgcgcactc agtctcccta gaactgtctt ctcccatac ttccttaact cttcttcagg 360
 gctcatcccc cccttccctc gag 383

<210> 834

<211> 191

<212> DNA

<213> Homo sapiens

<400> 834

gaattcgagg ccgcgtcgac ctccagaagga gaattgtgtt gcttgagcct cttttgagct 60
 ttaaaaagga caaggaaagg cactgtacgg agtgttttac ttttgacttt tttttcatga 120
 ctacaaaactg ttggatattg aaaaccttgc atttacttgt gaattgccag tctgtgtttg 180
 cgtcactcga g 191

<210> 835

<211> 194

<212> DNA

<213> Homo sapiens

<400> 835

gaattcgagg ccgcgtcgac tgcatttca tttcggtttc ttttctcgcc atgtttttct 60
 gtcggaatta cgttcgtttt tggttctatg tactctctaa aatgttatcg tttttcattt 120
 gtctactaat tttcgtgcat ttgttactac tgagtttctt aatatctgac tggcctccgc 180
 ccacgggtct cgag 194

<210> 836

<211> 206

<212> DNA

<213> Homo sapiens

<400> 836

```

gaattcgcg cgcgctcgac gtttgagtct tctgatgtaa aacatttaaa cagggaaatt 60
tctgctgtcc tcagaacaag atctgtattt ctgcctcttc cctaccacc cctcttccac 120
acctcataat gttattttatt ttttttctct ttagtgggca gttttatctg gcaatagcaa 180
ctcaatttta tggcaacgag ctcgag 206

```

<210> 837

<211> 156

<212> DNA

<213> Homo sapiens

<400> 837

```

gaattcgcg cgcgctcgac tgtgctgta tgtatgtgtg tgtgtgtaga cgttgtcctg 60
aggttcatca gctaaaataa tataataagc aatccctaca aaatatttca aaccaggcaa 120
atgacttctg gaagagagag aaaggaagag ctcgag 156

```

<210> 838

<211> 282

<212> DNA

<213> Homo sapiens

<400> 838

```

gaattcgcg cgcgctcgac gcatttgatt ggtcagagcg gttttagaat gctttttgaa 60
ggaaaataaa aatggacaag atattgaaga atagggggaa tttggccatg agtagaagac 120
aggagacttt tactgaaact cactccttca acctgttttt cttttattgt cgtacttggg 180
accatgtctt tatggcttgc tgtccttatt tcaactgtatg ctcactctaa tcttttagga 240
aattgcaaaa ttattaaaaa ttgccatagt acaaacctcg ag 282

```

<210> 839

<211> 199

<212> DNA

<213> Homo sapiens

<400> 839

```

gaattcgcg cgcgctcgac gcaaaacatc catcttatcc gagccctctt tgcaggcaaa 60
gggaaacagt tggaagagaa aatggtacag cagttacaag aggatgtgga catggaagat 120
gtccttaaaa aatctctgta accatttctt ttatgtacat ttgaaaatgc cctttggata 180
cttggaaactg cgactcgag 199

```

<210> 840

<211> 146

<212> DNA

<213> Homo sapiens

<400> 840

```

gaattcgcg cgcgctcgac ctaaaccgtc gattgaattc catgccctg tctctctgtc 60
tttatgtgtt gccatttctc tgccctgccc tttggctctc tttctcagag tgtctcttga 120
tctctaacte ttctctttgt ctcgag 146

```

<210> 841

<211> 225

<212> DNA

<213> Homo sapiens

<400> 841

```

gaattcgog cgcgctcgac caccctaatt atccggctgc ggcacaacgt gattaagaca 60
ggtgtacgca tgatcagcct ctctatttcc cgaatctcct tggctgacat cgcccagaag 120
ctgcagttgg atagccccga agatgcagag ttcattgttg ccaaggccat ccgggatggg 180
gtcattgagg ccagcatcaa ccacgagaag ggcctatgtcc tcgag 225

```

<210> 842

<211> 280
 <212> DNA
 <213> Homo sapiens

<400> 842
 gaattcgagg ccgcgtcgac cctaaacctc gactacatat tctgaaccag ccagggaagg 60
 gtgagttagt tgtttctgtt ggtcaactga atctcaggta tctttggtct tcctttctct 120
 tacaatggaa gtaatgttca ggacctatct gagaccagtc ccttgtctac tgctcttcat 180
 ccttttttct cttgttttct caatggcttt actccttctt ctcttcaaca gcatcagctc 240
 tgccccctct tactcttttg caaagacacc caatctcgag 280

<210> 843
 <211> 361
 <212> DNA
 <213> Homo sapiens

<400> 843
 gaattcgagg ccgcgtcgac agcttttctt tctacttgca gggtcaccaa agtgaaaatt 60
 gagtgttcat tttttcttta ttgcgatac ctgtagcctg agaatgttac ttctagcagt 120
 tgtcttcatt ttgtttattt ttattaatgt agaaaattat caaacccata gaaaaattga 180
 gagttagtg aatacccata tgccccgtgc cttggttctc cagctattaa caccttgtca 240
 tattttctat cctccttccc ctctcttact ctttccttcc tctctctctt tcttctcttg 300
 tctctctctt ttgtcgagac catgtgacac ttcaccaaca tataacactt cactcctcga 360
 g 361

<210> 844
 <211> 121
 <212> DNA
 <213> Homo sapiens

<400> 844
 gaattcgagg ccgcgtcgac gggagacaaa gaaatatcga aagcaagtaa agaaaaaaa 60
 agacaccagt gatcaacaga ataaagccag aatgagattg aagttagaaa cttggctcga 120
 g 121

<210> 845
 <211> 366
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (69)

<220>
 <221> unsure
 <222> (75)...(76)

<220>
 <221> unsure
 <222> (97)

<400> 845
 gaattcgagg ccgcgtcgac ctgggaacat ggtcaagggt gaaggggctc ccctagagag 60
 ggtgggggng tagttncttc ccagttggcc agaaaanagg gccttgacaga ccccttagc 120
 atttttccc ttttttctt tccctgcttt ctacttcttt ggggagcccc ttgtgttttg 180
 gagtctgact ggagtctcgc atcctggggc ctgtccatc catcctcctt gggcgccaga 240
 cctccatcc aagccctgtg tctttccata gtcaggggtc ggccctgcat ctattccaag 300
 gggcactcag tacacattcc ataaattagc tgggtgtccc tgcacgcccc ccccatgaaa 360
 ctcgag 366

<210> 846
<211> 183
<212> DNA
<213> Homo sapiens

<400> 846
gaattcgcg cgcgctcgac tggttctttt atagctaata aatatacttt tatctggctt 60
taagattttc tctaatactt ggttttaagc aatttggtta tgagggtgctt tgatgtagtt 120
ttatgtttct ttttattatt attattaaat ggtgtctcac tctgttgccc aggcttactc 180
gag 183

<210> 847
<211> 191
<212> DNA
<213> Homo sapiens

<400> 847
gaattcgcg cgcgctcgac atcctgggtc ttgcctgtaa tatcaatcaa ttgtttcacc 60
ttctcctcaa agtcagcatt attatggctc gaaatcatct gtgcaagtct aatttggtct 120
gcagtggcct gtggcgcgtg cttgtgctgt gtcctggttt ggttttgagg ttgttccag 180
ttccctcga g 191

<210> 848
<211> 207
<212> DNA
<213> Homo sapiens

<400> 848
gaattcgcg cgcgctcgac gtcacctcaa gcatttatcc tttgtgttac aaacaatcca 60
gttatacttt tttagttttc ttaaagtac gattaaatga ttattgacta tagtaacctt 120
gttgtgctat caaaaatatt agggcttatt catttatcca ttcaattttt ttgttaccga 180
ttaatcatcc ctacccctc cctcgag 207

<210> 849
<211> 235
<212> DNA
<213> Homo sapiens

<400> 849
gaattcgcg cgcgctcgac ggaattatct agtccccaga ttgatcatct cccctggcaa 60
cgtgactctg ttttttgtgt gtgtttccat gctgactagt cccctactgt taatatactt 120
actaattagg ctataaccag gtctttcctg gctgagaaa tattctctta aaatgacctt 180
tgttttaatc tcattcatga tgttgatttt ttttcaatgt ggtgctgggc tcgag 235

<210> 850
<211> 205
<212> DNA
<213> Homo sapiens

<400> 850
gaattcgcg cgcgctcgac cctaaaccgt cgttgaatc ttaaaaactt ttatattcct 60
tgttcataat tgatctgaca gataacagtt tgttaaaata ataatagtga ccatgtattc 120
gattatgctt ctgtgggttt gtatatgtgt gtgtatctat acatgggtact taggtataag 180
tgaaatgaat gacagcgatc tcgag 205

<210> 851
<211> 221
<212> DNA
<213> Homo sapiens

<400> 851

gaattcgcg cgcgctcgac cgcagacccc acactcttct gcaattcatt tcatagttgt 60
caagactata caaattgtcc tttttaatgt tctctcttct gctatcccta gttggcagtc 120
ttcctcttta caacctgctg aaagtggag acctccagtt ttcctttaat tcttcagcaa 180
accaccaact atttatgtgc ttttttccag aacaactcga g 221

<210> 852

<211> 254

<212> DNA

<213> Homo sapiens

<400> 852

gaattcgcg cgcgctcgac ctaacaatga agagtcaaga aaaagctaatt ttaggagaaa 60
atatggagaa gtcttgtgca agcaaggaag aagtcaaaga agtcagtatt gaagatacag 120
gtgttgatgt agatccagaa aaactggaaa tggagagtaa acttcataga aatttgctat 180
ttcaagattg tgaaaaagag caagacaaca aaacaaaaga tccacccat gatgttaaaa 240
ccccacact cgag 254

<210> 853

<211> 247

<212> DNA

<213> Homo sapiens

<400> 853

gaattcgcg cgcgctcgac gtcatttgac aacatccctg gcttttgttt gtttctttct 60
gggtagagac aaatttactc tccatttctg ataacaacgg agtcagtctt cctgctgccc 120
gaggattttt tgaacacagc tgaatactgc tcttcgcac ttctgagaga gggcagaacc 180
gggtcatcgt gttgcttgac agagggccat gataactgtc tacagatatt taaaggggtg 240
actcgag 247

<210> 854

<211> 253

<212> DNA

<213> Homo sapiens

<400> 854

gaattcgcg cgcgctcgac aattagtgtg catcattaaa ttatcaaata agtataaatt 60
agtagctctc tttttctgga taatagaagg atcttagaac actttaattc catttatctc 120
cctcacagtt tttatgctat attgccatct acttacatc ttggtaaatt taaacttca 180
gaagacatta ttattattgt tgtttgaaca gttaatatct attgagagtt actcatatat 240
ttgccacctc gag 253

<210> 855

<211> 318

<212> DNA

<213> Homo sapiens

<400> 855

gaattcgcg cgcgctcgac acctgectcg agcctaggtc gtccttttc acctaatata 60
cccagtttat aaatgggact cagttataaa gtttaggtcc acctcctcca ggaaattttt 120
tctgacacc tcttctctc caatctcgtt tgggtactct agcattgtgc ttcaccctt 180
tgcacagagc aatcatcatg tttaccacat ctactattaa cataattgtt tctgtgtttt 240
tctctccac aagatttatt ttttttagat gaggtgttgc tgtgttgccc aagctggact 300
tgaaccctca ggctcgag 318

<210> 856

<211> 249

<212> DNA

<213> Homo sapiens

<400> 856
 gaattcgcgg ccgcgtcgac aggtttcagc ttcttctcga ttcaatcttg ggtggttgta 60
 tgtttccagg aattcatcca ttttttaaatt ttttttttag ctttttttagt ttgtgtgcat 120
 agaggtgttc ataacagtat ctgaaggcct ttttgattta ttgtggagtc agtggtaatg 180
 tcttctttgt catttctgat tggatttatt tggatctact ctcatttttt ctttattagt 240
 ccgcgtcgag 249

<210> 857
 <211> 212
 <212> DNA
 <213> Homo sapiens

<400> 857
 gaattcgcgg ccgcgtcgac aggtattcaa tcaatataaa tatatatata tatatacaca 60
 cacatatata aaaagtataa tttttctatt tttgttttg gttttaattt gcagagattt 120
 gctgccagga atcaattttg aggggttcaga tttagcttgg aagaaaaaaa agaaacatac 180
 atccttcagt ataggagatg agggcactcg ag 212

<210> 858
 <211> 426
 <212> DNA
 <213> Homo sapiens

<400> 858
 gaattcgcgg ccgcgtcgac caaaaaacaa aaaaagaaaa tcttagaaaa agaaaataaa 60
 ttgtaatatt tcagaatatt tgttggggag gatattgttg ctcaagaaat acatactgag 120
 aacttaccat tgatgctaga gattgaattt ccccatgtct acatgaaaaa tgaatagaat 180
 ataaacattt taaattgagc catgtctatc tgtattatat ttcttttata gaaattcatg 240
 gaaatggat attttaactg aattattaac actggggaca ataggcttta atcattatct 300
 aatacctgta cgttgttttg aaattcatag cccaccacca ttaatttcaa aattgggttc 360
 ttactcaaag agtgatgaaa aggcaccagt accaaatggt ctggccaaaa tgctacatgc 420
 ctcgag 426

<210> 859
 <211> 215
 <212> DNA
 <213> Homo sapiens

<400> 859
 gaattcgcgg ccgcgtcgac catttgacct ttttaacaat ccctaagtaa ataaatagcc 60
 cctcaggaaa actaagtttt tctctgctgt ttttttgctt gagagagcta taactgtaat 120
 agacttatat ttctgaacat tttagtgctt gccaatattt ggtaatatatt atgtttccta 180
 tatttgaat gaacattctt ctcccggtac tcgag 215

<210> 860
 <211> 672
 <212> DNA
 <213> Homo sapiens

<400> 860
 gaattcgcgg ccgcgtcgac cccagcctcc cttccacag aggcaccgt catggccagt 60
 tgctgcagtt tctttccaga gaacctgtgt atgtgtaaag ctgtacaggc gtgggtacac 120
 cacacagcct gtcttgact gtggactgtt gagttactag tacatctaga atttctctgg 180
 ctattccagg ctgcagtgtt accttaacct tccctgtgat gtcttcacgc cgttgtcttc 240
 ttatgcaaga ataagactca aatgactcca gaaagctaca cttcctgttg tgagtatatg 300
 atatccattt ccttacatag ccactaacat caggttttta caattttatt tatttcttgc 360
 tactttaaga aatttttgtg gtgaaataca tataatagaa gttgactatc tgaatcattt 420
 ttaagtatac attcagtagt gtttaagtatg tgcacattgt tgtacaacca atctccagaa 480
 ctttttcac ttcgaaaaca aactctgtac ccattaaata acattaaaca ttccattccc 540
 tccagcctca gcaaccccat tctactttct gtttctgtga gtttgactat tccaagcact 600

tcataatcagt taaatcatga agtattttgtc tgcctgtgac tggcttattt ctctgagcac 660
agtgtcctcg ag 672

<210> 861

<211> 207

<212> DNA

<213> Homo sapiens

<400> 861

gaattcgcg cgcgctcgac ctacaagttt ggacttggtt ctggaatctg cctacttggt 60
caaaatatta atagcatatg atattataaa ttaatgatta gttttatgta ttgcagaaaa 120
tatttaatta tgctgatttt tcctaataata tttttatggt tacaatttga cttagtaaag 180
gatgaaaaca aagtagcaaa actcgag 207

<210> 862

<211> 171

<212> DNA

<213> Homo sapiens

<400> 862

gaattcgcg cgcgctcgac taaacacatt atgattttag taagacatat gcattattta 60
gacatgtact tcttaatat aaagatagta tttgtaattg gttttgacct tattcagact 120
atggttagag tacatactaa gcaagaatta aaggctttcc attttctcga g 171

<210> 863

<211> 235

<212> DNA

<213> Homo sapiens

<400> 863

gaattcgcg cgcgctcgac gtgttttcag aaagagaaaa catctcctgc aaagatctgt 60
aggttgacc ttgaaagaac aagacaaaac caaacttcaa gactatcctc ctgtttaaaa 120
ggagactagc aggtgtcaaa gagaggcgg aaagctcatg atacctgatg taatcagtgc 180
ctcctcctc ctggcgcgag caggatgcct tcccttcaat gactcccaac tcgag 235

<210> 864

<211> 256

<212> DNA

<213> Homo sapiens

<400> 864

gaattcgcg cgcgctcgac tagaatcgtg gatccccatg gccctccfct gtcacatttt 60
tctttttact gttctcttac cccctttcac tctcacttca ctctctccat gctgctgtac 120
taccagtage tctctttacc aagaggttct atggagaatg tggettccca gaaatattga 180
tgccccatg tatagggtt tttctaaagg agacccact ttcaccaccc acaaccatat 240
acccccgaca ctcgag 256

<210> 865

<211> 265

<212> DNA

<213> Homo sapiens

<400> 865

gaattcgcg cgcgctcgac aattgacacg tcacactctg gtcagaaggt gttaagtagt 60
tcctgttatt caaggaatga agtacaacca ctttagccca gtgctcaagg tcatactttc 120
cttactctgt accaattctc tagtctcacc ategcaggct gcctgcggcc ctcagacca 180
tcacatgcat tcctgctca gctctccct tctgtgcaac acctgtcctt ctctggcac 240
taaccaaagt tcaccattcc tcgag 265

<210> 866

<211> 262
<212> DNA
<213> Homo sapiens

<400> 866
gaattcgcg cgcgctcgac cattttcttt ggctgttatg tgtaaacagt tectctgtta 60
ctttgcatgt tatgttttat ttttctctg cttgacaact tgtgccagag aaacattttt 120
ctaccctttt ttgtctactc ttccaacctg tcaaactgtt gaattttctt tctcttttca 180
tagtctctgc atttctaate atgttcaacta tagttcagtg ctgcccaata gaactttctg 240
ctgcggggcg ggggtgctcg ag 262

<210> 867
<211> 283
<212> DNA
<213> Homo sapiens

<400> 867
gaattcgcg cgcgctcgac atctacttct agcttttttc ctattttggc tccggccggtt 60
ggttctctatc ttccccgcac tgcccgcgct cacagtcctg cttccttgte ttttgccetca 120
tatcgctcagg tagctagtgt cggttcagct gctcctccca gacagtttga tgcattctcaa 180
ttcagccaaag gccctgtgcc tggcacttgt gctgactgga tcccacagtc ggcgtcttgt 240
cccacaggac ctcccagaa cccaccttct gcaccggctc gag 283

<210> 868
<211> 219
<212> DNA
<213> Homo sapiens

<400> 868
gaattcgcg cgcgctcgac aaaacgtcag aacatttggg gttttaaaact gatttgttgc 60
tccctatcca gccatagacac cagtaactct tgtgttcacc aggaccaga ccttggcaa 120
gggataggct cgttgggtgac attgtgaatt tcagatttgt tttatccact tttttgcta 180
tttatttaaa tggtcgatca acttcccaca acactcgag 219

<210> 869
<211> 258
<212> DNA
<213> Homo sapiens

<400> 869
gaattcgcg cgcgctcgac gtaatacaga agggagttagg taaaaaatc tgtaattctg 60
aaaaagtatt agtataaact ttaattagta tttcatctt aaatgtttt ctggctctgt 120
ccactgaaga agcttagaaa taatgaccaa atctgttaca tccataccat tgtgatctta 180
aaatatctt tttactaga agaaatggct ggttcagaa attgcttatt ccccatgggg 240
caggaagtgc acctcgag 258

<210> 870
<211> 298
<212> DNA
<213> Homo sapiens

<400> 870
gaattcgcg cgcgctcgac ctgcatttta aatatattgg ggacagattg cgctgagacc 60
tggttatgag caagccaatc ttttgaatct agagaatgga attcttaggt ttatatctt 120
gttaagaaat actataaata tgactcttat gagaagactt tgttgcctg tagtgtttct 180
gaatactgta tttgttggat tgatcaaggc tatttttcaa aaagctctt gttcctgtt 240
tgttgtttg tttgtttttg agacagagtc ttgctctgct gcgggggctg aactcgag 298

<210> 871
<211> 150

<212> DNA

<213> Homo sapiens

<400> 871

gaattcgcg cgcgctcgac cgtccctctc tctgacagaa gccatataag gtccatgagg 60
gtagagattt tcttttttct ttgtgttaat tgctgtatcc tcagcacttg gaaaaagggc 120
ctggcacttt gggatgagcg aacactcgag 150

<210> 872

<211> 241

<212> DNA

<213> Homo sapiens

<400> 872

gaattcgcg cgcgctcgac attgaattct agacctgcct ctagtgtgtg ggtgtgtttg 60
tctttttgtc ttccatcttt tggtttacat tttaatcacc tcaaaaaata tccccctgat 120
gtatcattca gcttctcaga gtttttgtgt ttttgtctgt gtatgtgtgt gtgtgtgtgt 180
gtgtgtgtgt gtgtgtttaa aaacattttt tcttttgtt aggccacatg ctacactcga 240
g 241

<210> 873

<211> 228

<212> DNA

<213> Homo sapiens

<400> 873

gaattcgcg cgcgctcgac catgtctccg tccctgtcac gggtggttct tttcctcttc 60
ctctccctca gaagtctgcc catcctacaa ggagatgtgc aggacctcc accccgaaca 120
ggtaactgcy tgccttcac ctccatcacg cagcctgacc ctgtgagccc ctctgtgtct 180
tgtggaccg tcacctgag ctctcagtt gctgaaccac ccctcgag 228

<210> 874

<211> 178

<212> DNA

<213> Homo sapiens

<400> 874

gaattcgcg cgcgctcgac atattaactc aaaagaaata gggtgatttt taaaggatta 60
ataaaattct gaaatgttaa gtagaagatt acattgtcta gtcttgattt tctccttct 120
gttctctctt ttcattcaca cactctcagt ttctcatatt tgtagctcat tgctcgag 178

<210> 875

<211> 179

<212> DNA

<213> Homo sapiens

<400> 875

gaattcgcg cgcgctcgac agtggtccg caggatatat ctgatttaaa aaataggaac 60
cacaataata atagctgctt atgcttatgg agcattgcca tgtgctagat aggcaccatc 120
ctcagccctt ggcaggtctg agctccttta tttcttccaa tcaacactgt cagctcgag 179

<210> 876

<211> 214

<212> DNA

<213> Homo sapiens

<400> 876

gaattcgcg cgcgctcgac caagatttta ccaaggccaa ttttagtagc tttgtttctg 60
gggtattttg tctggtcaat atacagaaat aagaatgata atgaaagtga taatgatagg 120
aataataata ggaagagtag cgacttttct tctttgtgta tcaattcatt caacaaattt 180

gaccaagtgc ctgctacatg ccaaagcact cgag

214

<210> 877

<211> 436

<212> DNA

<213> Homo sapiens

<400> 877

gaattcgcgg ccgcgtcgac gtgcattgcc caacaactca tctcaaatat taaattcaaa 60
agaaaaactg tagttctcct cagcatttagc actaatatg ggtaacaatc atttctttta 120
aatgtctaac ttatttaacc ctttcatttc aaactgcaaa ttaaagcatg tatttacata 180
ttatataaca aaaaacttca aaaacaaatt aatccaaatc ttggtccaag agtttccact 240
ttataagtgg tatggtacta tgctatatat atctctcttc aaaagtctct taggacttgg 300
taagttccaa atattcattc acaaatgggt cccctttaag cttaatgaac catatacttc 360
atttctgagt aaatttaggg aaatattaca gaacacgctt tgtacaatac agcaccacta 420
ctgagaaggg ctcgag 436

<210> 878

<211> 174

<212> DNA

<213> Homo sapiens

<400> 878

gaattcgcgg ccgcgtcgac cttatttatt actgaaataa tctaaactga ataaataact 60
ttttaaaaaa ttacattggc cagtattagg ttctgtatgc gtatttggtg ttttgtttgt 120
actgctgggt ttttctctc cagtattgga tgcgttaacg gggatgcact cgag 174

<210> 879

<211> 229

<212> DNA

<213> Homo sapiens

<400> 879

gaattcgcgg ccgcgtcgac ctcagaaaaa aaaacaaaca aacatgttgg tcaaatttat 60
aattaaaagc acaatagtta ttggttggtt attgaataaa atcaggagtt ttaataatat 120
tggtgtgggg caccctgatg gatgggacca cagtatgaag gctgtagtaa tccagcatga 180
ggtgcccttt attttctttt tcagattcaa gagcaggcac gacctcgag 229

<210> 880

<211> 110

<212> DNA

<213> Homo sapiens

<400> 880

gaattcgcgg ccgcgtcgac atttatctga tcttttacag aaaaagtttg ctaacccttg 60
ataacagata ctctaaaatg caggttttcc ttttcaatt ggtgctcgag 110

<210> 881

<211> 239

<212> DNA

<213> Homo sapiens

<400> 881

gaattcgcgg ccgcgtcgac gtgacttgct taactgcac ttttcccag tagttagtct 60
tttctgttg ggacaccatg ttggtagtct ggaaatggtt tttccatcc attgctgccc 120
ttttagcttt gtgcatggtg ttctgttgca aattttggtg cacgtttaat gtgaacaatg 180
gttatgagac gagtgccatg agttctctg tgctgtcac ccagcccggc acgctcgag 239

<210> 882

<211> 159

<212> DNA

<213> Homo sapiens

<400> 882

gaattcgcgg ccgcgtcgac ctgtgtggat ggactgagcc tagctaagtc ctgattcatt 60
ttgacttgag ttctctcagt gggaagaatg ggaaagattt acagcttcgt cctggtcgcc 120
attgctctga tgatgggaag ggaagggttg gcctcgcgag 159

<210> 883

<211> 121

<212> DNA

<213> Homo sapiens

<400> 883

gaattcgcgg ccgcgtcgac ggggtctctt gcttttggtc ctctaaaaac tggctcgtca 60
actttttaat attttcttca tgctgtgctc tcaattcctt catctgctgt ccacactcga 120
g 121

<210> 884

<211> 257

<212> DNA

<213> Homo sapiens

<400> 884

gaattcgcgg ccgcgtcgac cctagcttga atttgaaca acagcacatc ttaatttggg 60
cactaaattt tcatcaaaaa tatttcattg atttagattt cataaattta cagttgaaa 120
agtatagtga catatccaaa ttgtccaaa catgcttaaa attttccag tatgtatgtt 180
gttttaaaat atttatattt ttgttgtgtt tggtgtgtt ttttaagatg gatttttgc 240
cttgtcaccc cctcgag 257

<210> 885

<211> 141

<212> DNA

<213> Homo sapiens

<400> 885

gaattcgcgg ccgcgtcgac gtctctctct gagctctatt tgcttcagtg caacatgaag 60
ttcatgaccc agtcgcctt tgagagggca ctccgattc tcaacgtggc cctcgcatcc 120
ctccaccca gacaactcga g 141

<210> 886

<211> 286

<212> DNA

<213> Homo sapiens

<400> 886

gaattcgcgg ccgcgtcgac gcaacatgag gcttttcttg tggaacgcgg tcttgactct 60
gttcgtcact tctttgattg gggctttgat cctgaacca gaagtgaana ttgaagttct 120
ccagaagcca ttcactgccc atcgcaagac caaaggaggg gatttgatgt tggccacta 180
tgaaggctac ttagaaaagg acggctcctt atttactcc actcacaac ataacaatgg 240
tcagcccatc tggtttaccg tgggcacccg ggaggctcgg ctcgag 286

<210> 887

<211> 264

<212> DNA

<213> Homo sapiens

<400> 887

gaattcgcgg ccgcgtcgac ggatcagaaa tattgcttgg aaagtgtga gctcatgatg 60
gatgtcaac aagcggtagt tatgataatg gcagggaacg cggtggggtt gcttgtcttg 120

ttttctgctggt gttttggcgg tctgcaaggg gagagcagcc agcaggcagg gcacctgtgt 180
acgtcgatga ctgaccaccc catggtaccc cagatctatc tccccaaac actattcttt 240
ctgcctggga cccattctct cgag 264

<210> 888

<211> 290

<212> DNA

<213> Homo sapiens

<400> 888

gaattcggcc aaagaggcct atgaagcagg cgctcttggc tcggcgcggc ccgctgcaat 60
ccgtggagga acgcgccgcc gagccaccat catgcctggg cacttacagg aaggcttcgg 120
ctgcgtgggc accaaccgat tcgaccagtt atttgacgac gaatcggacc ccttcgaggt 180
gctgaaggca gcagagaaca agaaaaaga agccggcggg ggccggcgtt ggggccctgg 240
ggccaagagc gcagctcagg ccgcggccca gaccaactcc aggcctcgag 290

<210> 889

<211> 243

<212> DNA

<213> Homo sapiens

<400> 889

gaattcggcc aaagaggcct agctaccaat tcttctactc ttcgtgctgt ttcttctcgt 60
atgagttttt cttctatttc ttgctgtcga attttctcgt gccgctcgaa ctccgctttc 120
ttctctctct cctctcgtt ctgcttctcg tccaggctgc tgcgcttgc cctcaggtt 180
tgcagttct tctctctctc tagctttttg tgcgcaagc tcagcttgc tctgtcgtc 240
gag 243

<210> 890

<211> 241

<212> DNA

<213> Homo sapiens

<400> 890

gaattcggcc aaagaggcct aagctgggtgt cattacacgt caacctgcct tgagccaagt 60
cctgcttcac ctgcagcgc aacagggtacc ttgtgagttc ttcttgaggt tgtgtgtgt 120
caggcggaaa gaatttcacc acaaaactta caacaacgtg ctttggcctt ctaatctgtt 180
tcacaatggg ttttaggaga tccagccaca ccgtgatctt tttgtgatca ggaaactcga 240
g 241

<210> 891

<211> 431

<212> DNA

<213> Homo sapiens

<400> 891

gaattcgcca aagaggccta aaaatatctg ttttaataca agataaccac atcaagatgg 60
ttggaaagct gaagcagaac ttactattgg catgtctggt gattagttct gtgactgtgt 120
tttacctggg ccagcatgcc atggaatgcc atcacggat agaggaacgt agccagccag 180
tcaaattgga gagcacaagg accactgtga gaactggcct ggacctcaaa gccaaacaaa 240
cctttgccta tcacaagat atgcctttaa tatttattgg aggtgtgcct cggagtggaa 300
ccacactcat gagggccatg ctggacgcac atcctgacat tcgctgtgga gaggaacca 360
gggtcattcc ccgaatctg gccctgaagc agatgtggtc acggtcaagt aaagagaaga 420
tcaagctcga g 431

<210> 892

<211> 384

<212> DNA

<213> Homo sapiens

<400> 892

gaattcggcc aaagaggcct agtctgtcct gttgtgtggg gcgaagtgat ggactctgcc 60
aggtggacat gctgtgggtg gatgttcccg gcgtgtgccg ggccctgaatg gacaggggcc 120
acttcacagc atgtcagggg aaatcactgt cacacaattc caatggattt tgtgctcttt 180
ttgaaaaaaa aaaattcttt agcgtaaaca tgaatttttt ttcaatgtag cccctgggga 240
atgaatgaaa ttttgagctt ctccaatagc taaaattaaa ttataaccac tgaggggagag 300
accctttctg aaagaagtat ggccaaaagc actttaatgc tgetgacatt gttgttttta 360
tgttcatttg ctggagcgct cgag 384

<210> 893

<211> 208

<212> DNA

<213> Homo sapiens

<400> 893

gaattcggcc aaagaggcct agtggggcct ggctatctag aaaccaccgc aatggctgga 60
gccaaagtttg gtcaatgggg taaacatttc agaaggtagg cagggcatgc cctgaggcca 120
ggaggcctct gccgtcctgg ctgtgtcctc aggatggcca attctcacag aaaccaccac 180
aaggaaagat ctctggggac gactcgag 208

<210> 894

<211> 479

<212> DNA

<213> Homo sapiens

<400> 894

gaattcggcg ccgcgtcgac atcaatattt gtattatggt gctatatatt ggtaatgac 60
ctttaaatatt gggaaaggat tttaaaaata ctgtgattaa actgggttct tcctttgatt 120
ttcatatttt aaataaagcc acagtcattt atacaaaaga aaagcatctg tccctgggca 180
aatcttttga ggacagaggt caaagtaaac tgcataaggt ttttacatca tttctgtatg 240
tatttgatat atagatcaat atctgtacaa atttaattct ttattttctt ggtaactcgt 300
gatcattgag aaagtgtttg aaactttctc atgaagtgtat tatataatgg cgtgaaaaat 360
tcctttggaa aaatttatgt tcctttcatt ttaccacaaat tgcaaatatt cagcatggat 420
gtgaaaagca ttaaaattat aactttgtgt acaagatgaa aataattcac aactcgag 479

<210> 895

<211> 386

<212> DNA

<213> Homo sapiens

<400> 895

gaattcggcg ccgcgtcgac atcaaaaatg agggatgtaa gtttcaatgt gagtatttct 60
gaatagtttt tttcaaatgc agccaagtca gtaatactct gttgtaactt tagatagggt 120
atctatgaat taaaaatccc tgaaatgtgac attactctaa aatcttgcat cttgaactgg 180
agagcactgt tgttttctgg taggagggtc atgaagcatg cattagaggt agcttctttt 240
cctggaggaa gatttggatg agtatgtatt ttttatattg aaacagacat gaatatattt 300
tggagatgaa agtaaaaacta gcaggaatgt taagaaaaaa cttaaaattg ctttaaaagta 360
taatgtcgaa tccccgaat ctcgag 386

<210> 896

<211> 202

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (40) .. (41)

<220>

<221> unsure

<222> (62)

<400> 896

gaattcgcg cgcgctcgac actttaacca gtagaacatn ncaaaaatga cactttgcta 60
 tntttgggta caagccttga gcatgtcagg cagcttctac ttttgactc ttgggagctc 120
 tgagttgctg ccgtgcaaga agctgtcata ccttgctgga gagatgatgt ggagaggaag 180
 agattccagg acagtactcg ag 202

<210> 897

<211> 266

<212> DNA

<213> Homo sapiens

<400> 897

gaattcgcg cgcgctcgac cacagacttc tccactgata tctatgttag tatttatcca 60
 gctttctact tggatatgc acttggattt ttataaggta tctcaaactt aatatgtcca 120
 aaactaaact tctgattctc tgtatacttc cagcttgctt ctcccacagt gtttccaatc 180
 tcagtaaatg gcaaccctat ccttctagtt ctttaggcca aaagcttga atcactcttc 240
 cttttctttc cccacatccc ctcgag 266

<210> 898

<211> 180

<212> DNA

<213> Homo sapiens

<400> 898

gaattcgcg cgcgctcgac cttgcattgc gtggttttag ggaagcaggg tctggctttt 60
 aatatgaact gcaaaaagca gcttctcact gatatttttt tgttgttgtt tctggggggg 120
 tttttgtttt tgttttaaat gcctttgagt gcatatttcc ttccctgtct gaaactcgag 180

<210> 899

<211> 200

<212> DNA

<213> Homo sapiens

<400> 899

gaattcgcg cgcgctcgac atgggccact acactccagc ctgggtgaca gagcgagact 60
 ccatctcaaa aataaaaaga gttgctagaa aaggtagaac ccacatttct ctggcttcca 120
 aagcctgtgt tctttctgct gtattatgct tttttataac aaccaggcta atatatetta 180
 aataccatcg tacactcgag 200

<210> 900

<211> 163

<212> DNA

<213> Homo sapiens

<400> 900

gaattcgcg cgcgctcgac cagaaagtgt agctctgaac aaggggacca ctatggctag 60
 agagggccgt ggagctgagg gtgggatttc gttttgtttt gttttgtttt gttttgttt 120
 ttttgagaca aagtgttgct ctgtctccca agctggactc gag 163

<210> 901

<211> 186

<212> DNA

<213> Homo sapiens

<400> 901

gaattcgcg cgcgctcgac gtactgtaac atgaaagcgt tgctcgacta ctttcegetg 60
 attatcttct tctactttta taaaacgacc gatcctaag atagtcaaca tccccttctc 120
 caattggtg gttagcgagg aaatactgat caaaatcata ttctgttgc aacagycgca 180

ctcgag

186

<210> 902

<211> 212

<212> DNA

<213> Homo sapiens

<400> 902

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cccacagtag accctccac tcaaatctgc cccaataacc ctttgaacc aatattaccg 120
cactacactt tatcttccct aagggttcc tgctctctct ggtcttaggt gaggtcattt 180
ctctgccagc ctttaaagtg gaagccctcg ag 212

<210> 903

<211> 192

<212> DNA

<213> Homo sapiens

<400> 903

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ttaaatatct ttaattttat aagcttctt atgacagttc ttatccactg tattctttcg 180
gttctcccta ta 192

<210> 904

<211> 196

<212> DNA

<213> Homo sapiens

<400> 904

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gcaccttttc ctattttgga ctctaattcc agcagctgtg tttaaaccctc ctggagattt 120
acagaaatac gtcttgccat tctgtgttca ttgccagat tcattgctag ttgggataca 180
agcaagccga ctcgag 196

<210> 905

<211> 259

<212> DNA

<213> Homo sapiens

<400> 905

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ctttttctta catgagtact ggttccagat catctagatg cttttgtttt ctccatagt 180
cttgggcatt cctttctgtg tctgcatgct gtttctctcc ctcagatggt gtctcccaa 240
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<210> 906

<211> 208

<212> DNA

<213> Homo sapiens

<400> 906

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tgtgtctgtg tgtgtgtctg tgtgtgtgta atatttagac taaaccatgg 180
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<210> 907

<211> 212

<212> DNA

<213> Homo sapiens

<400> 907

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ggttacaact catgagagga ttcttatttc tgatcaatat attgtgtttt tggaaaggac 180
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<210> 908

<211> 137

<212> DNA

<213> Homo sapiens

<400> 908

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accatcaggt tctaggggtt gtgataggca caacatatat attctacttt tggctattga 120
gggggggtcaa cctcgag 137

<210> 909

<211> 209

<212> DNA

<213> Homo sapiens

<400> 909

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aaatgaattt atgggttctt aacatgtatt tgtgtttat tttagtcctt attgtttta 180
gtgttcacat ctgcccagg ctactcgag 209

<210> 910

<211> 392

<212> DNA

<213> Homo sapiens

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gtgtgtgat gtatttgtat gtctcattgt gttttatgaa taaagatata tctcatctt 180
tgtcaagcaa actacaaaagt attagataat actttctcta gttttctaag catccattaa 240
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gcctactgca gcctccacca gccaggctcg ag 392

<210> 911

<211> 192

<212> DNA

<213> Homo sapiens

<400> 911

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tggcaccaca caagccctat atagcaggaa ggaaatatga ggttcagaaa gagtctagtc 120
tcagtcttac ctttaacttc actgtgtgac cctggaaaaa tatctttctt ctctactccc 180
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<210> 912

<211> 226

<212> DNA

<213> Homo sapiens

<400> 912

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gacaaaataa tcttaaatc ttataatctt tcaacttaag tctttttttt ataagctttg 120
ttttatttcc ttactttact ttgatacctt cccagtcctt cagaatttta acttctatat 180
catgggttta ctctgccaat tcccatatta ccttcccctc ctcgag 226

<210> 913

<211> 465

<212> DNA

<213> Homo sapiens

<400> 913

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ttgtagttta caaagtttta ttccagaagg aaaaagcca cttcacctag aaattttgca 180
aacaatcaa cttttactct gtgagtaatc cagggcctat caagactaca ttttagttga 240
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gtggacattt cagccttgaa ggcagtgtg cagcttgctg agccatacct ctgtgaatct 420
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<210> 914

<211> 172

<212> DNA

<213> Homo sapiens

<400> 914

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<210> 915

<211> 185

<212> DNA

<213> Homo sapiens

<400> 915

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aaaaaatgca gatggttcca aacatctctt ttttggccat gtttggtatg tacttcttga 120
ctgccatttt tggctacttg acattctatg acaacgtgca gtccgacctc cttcacaac 180
tcgag 185

<210> 916

<211> 219

<212> DNA

<213> Homo sapiens

<400> 916

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tggattacag taatgctttt gttggcctgt tgtatgacaa actatttaaa ggttcacatt 120
ttgatttgta ttgccaaca agcccttttg cttgttaaag ctatagctaa ctctcaggag 180
ataattgcag ttctactctt agaggatggc tgcctcgag 219

<210> 917

<211> 270

<212> DNA

<213> Homo sapiens

<400> 917

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 ttaatttcaa cagtcagata tatgttagtg ttttaggtac ttttcagctt tctattagaa 240
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<210> 918
 <211> 154
 <212> DNA
 <213> Homo sapiens

<400> 918
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 aatacttaga aaggaaacaa aagatttttt tcaaagaga aaactttcag cttttatcaa 120
 atatttattc attcaaacaa cagtagctct cgag 154

<210> 919
 <211> 210
 <212> DNA
 <213> Homo sapiens

<400> 919
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 gggctataaa ttttgaactg tattctcgag 210

<210> 920
 <211> 551
 <212> DNA
 <213> Homo sapiens

<400> 920
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 ttttgatttc ttgttaattt tagatgctt cctagcttac aaaaagttct atttttgggt 180
 taaaaatcaa tcaactttct gatatttccc cttctgcaat gttattgttc ataagaaaac 240
 acgagctgaa aatggaaatc tgcagttggt tcagttgtct tgaatttctt tcagtgacca 300
 catcatttcc acgtttttcca catccgggag gaagcctgga ctgtgcagcc ttcgggcacc 360
 cggcacagac actgtgctgg caggagcttc agacacgcca agtggatgga tttggattga 420
 acgcatatga aacaggagac gggttctcat gtgagatcaa agctcctcca aagcctgttc 480
 aagctctaag cgatttctca atgttaccat ttattaaagg taaactacac ctgttgaagc 540
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<210> 921
 <211> 164
 <212> DNA
 <213> Homo sapiens

<400> 921
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 ttctcattga aacaatgatt ctcttaaca actctcaaat ctgcccactt ggctacatgc 120
 ttttgcaata ttccagacca aattaccatg atctgtcact cgag 164

<210> 922
 <211> 194
 <212> DNA
 <213> Homo sapiens

<400> 922
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tggatctttt gatacagatt gaaaaagcct ttattcaaca cctaaatgt gtcaggtgct 120
ttggctttgt actaacatgg ttactgatta ttatggtttt atccctttta aaatacaaag 180
aagcaggtct cgag 194

<210> 923
<211> 200
<212> DNA
<213> Homo sapiens

<400> 923
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cggaccctgct actactgggc ctgattgggg gcctgactct cttactgctg ctgacgctgc 120
tggcctttgc cgggtactca gggctactgg ctgggggtga agtgagtgtt gggtcacccc 180
ccatccgcaa cgtactcgag 200

<210> 924
<211> 158
<212> DNA
<213> Homo sapiens

<400> 924
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ggatccctta tgtcctgcag tttgtccctt agaagaatta tctccagata gtattgatgc 120
acatacgttt gattttgaaa ctatcccccac tctctcgag 158

<210> 925
<211> 187
<212> DNA
<213> Homo sapiens

<400> 925
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tattgtgtgc tagttactta atatcagtg ttattccatt ttcttcatta tcatattcca 120
tattataata attagatgtg aagacatgca ctttcgtgta ttgagtattt ataggatcag 180
tctcgag 187

<210> 926
<211> 164
<212> DNA
<213> Homo sapiens

<400> 926
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gtttttaaaa ttcttgagaa aatcatatgc tgtgatcaac catagcgctg tttttttttt 120
aatagcagga aatgtatata agtctattac cgcacttact cgag 164

<210> 927
<211> 192
<212> DNA
<213> Homo sapiens

<400> 927
gaattcgcgg ccgcgtcgac cttgcttcag aaattgaaat ctgaaggacg tgggtgctg 60
attttatcac agatgattct tatgttgac attttagaga tgttcttgaa ctccattac 120
ctcacctatg taagaatcga tgaaaatgcc agcagtgagc aacggcagga actgatgagg 180
agtccctcgt ag 192

<210> 928
<211> 167
<212> DNA

<213> Homo sapiens

<400> 928

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctacacctgc ctgcagcctg 60
accaacatgg tgaaatgctc tctctcctaa aaaaaaaaaa tttatatata tatatcagcc 120
agggtgtggtg gcacgtgcct gtgatccag ctacgctgga gctcgag 167

<210> 929

<211> 144

<212> DNA

<213> Homo sapiens

<400> 929

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ttttaaaagt ggaaaccgtg tgtgtgcctc tcgatttaag ggtttctgat gacattattc 120
ttaagaccag cattgatcct cgag 144

<210> 930

<211> 213

<212> DNA

<213> Homo sapiens

<400> 930

gaattcgcgg ccgcgtcgac agtttttgca tgtaaagttg ttcatagtag ccttgaatga 60
tattttgtct ttcggtggtg tcagggtgaa tagctcccat tttgtttatc ttttcaaaga 120
accagctttt tttgtttcat ttatcttttc tattttttta ttttcttttc aatttcattt 180
agttctgctc tgatgagaat gctacttctc gag 213

<210> 931

<211> 252

<212> DNA

<213> Homo sapiens

<400> 931

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aagtcctaatt tggggaaaat aaagagcaac agaaaagaga acacttggtc caacacataa 120
aaagggtgat aatatttttag agagtttggg tagacttgaa tattatttgt ttagaacctg 180
aatctcaagt ctaagtctgt aacaagattt ctcttcacga tgatgaggag tctgatgagg 240
agagctctcg ag 252

<210> 932

<211> 437

<212> DNA

<213> Homo sapiens

<400> 932

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tcaggagctc ggtggcatgg cggcgggtggc tgccccgatt tcctccagct gccactcctt 120
gcttcgtgtc ccggtccct agacgcctcg tctcctcccg tgctcctctt cccatggagt 180
cagtacggat cgaacagatg ctgagcttgc ccgceggagt cagcagcgac aacttggagt 240
cggcggagcg aggggcatca gcgcccaag tagacatggg ccccccacca aaggtggctg 300
cagaggggccc cgcacctcta ccgacgcggg agccagagca agagcagtc cgggggacct 360
caacgccgga gagcaaatgc ctgctcacgc aggcagagcg cttggcgtcc cggggggcga 420
tccgtgaagc cctcgag 437

<210> 933

<211> 137

<212> DNA

<213> Homo sapiens

<400> 933

gaattcgcgg ccgcgtcgac ctataagcgg ttgcaacttt aggttccctca atggatacaa 60
aatttgcat tatactggct ctatcttcca caagtatgat gtgccatcaa atgcagaatt 120
atagcaggaa tctcgag 137

<210> 934

<211> 190

<212> DNA

<213> Homo sapiens

<400> 934

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ggaaacaaag gaccatcgc aaatgttttc catgctgac tcacaaagtgg tgagtttatg 120
tgtgattttt attttgttta tgcctcttcg tatttccga atttcataca ataaatatct 180
gttactcgag 190

<210> 935

<211> 169

<212> DNA

<213> Homo sapiens

<400> 935

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atttttcata gcattcacct tacttacctt ttaatgccca gtgggggttg caatgatagt 120
ctctgatatt gcagatttta gtgatgtggt tcttcccccc ccgctcgag 169

<210> 936

<211> 159

<212> DNA

<213> Homo sapiens

<400> 936

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gcctgtgct gaatgggctg ctctcttttc accatcatca gttcatggt tttctttttt 120
ctttttaaaa ctgtattttc tttgtgcggc actctcgag 159

<210> 937

<211> 234

<212> DNA

<213> Homo sapiens

<400> 937

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cctcaaatac atttaaatc tagttctgtt atctgtttt ggctttcttt ttaggtacc 120
ccaatgatgc atatgttgac tgtgctgtgg ttgtttctg gcgattttat tcttaccagt 180
cactgttttc agtgtgtct ttttcttac caacattctg caaagtcact cgag 234

<210> 938

<211> 152

<212> DNA

<213> Homo sapiens

<400> 938

gaattcgcgg ccgcgtcgac atattatttt acatcattgt ttctgtcctt tttattttca 60
tttgcgtct ctaatttaga ccttattac catacacctg gtttatgttc acagtctcct 120
aaatgatctc cttcataccg ctagtactcg ag 152

<210> 939

<211> 275

<212> DNA

<213> Homo sapiens

<400> 939

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accgctctct cccagcccc tcagctggtg ggctgggtg tgcagcggc aaatggggct 180
ctggttccaa tgggcccact tcattctctt cttgttcctt gtgcagaaaa cctttgcttc 240
actccactgc cctctctagt tcccgatccc tcgag 275

<210> 940

<211> 246

<212> DNA

<213> Homo sapiens

<400> 940

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agtatctcat caagtcaaact aagcacagag taagaatttc aaagctagag agggctgaca 180
ataatagaaa acagaaacat actcaatata tactctcttc tcactatgaa gctggggcta 240
ctcgag 246

<210> 941

<211> 168

<212> DNA

<213> Homo sapiens

<400> 941

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tttgcctta ggtggagctg ttaaaagttaa ataagtgtga atatctgtca aatacagttt 120
ttgcaagagt gcatgtacat tttatatatt gtaagaaaag ctctcgag 168

<210> 942

<211> 205

<212> DNA

<213> Homo sapiens

<400> 942

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tacaagttaa aatactgtca tttcaatttt ctgcttttaa ttgtttttta taagcattcc 120
aaagtgtac agacttaagc ttttaataca tcagtcattc agttgataga caaagttagc 180
gatgctttat gctaggatac tcgag 205

<210> 943

<211> 188

<212> DNA

<213> Homo sapiens

<400> 943

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ctttattttt cagttttttt cttctcctta tccaggacac atccccacca gacaccagct 120
cctctgcccc atccaggcct ctatccccc cagtggtcca tgtctccagg acagccactc 180
acctcgag 188

<210> 944

<211> 241

<212> DNA

<213> Homo sapiens

<400> 944

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acttagtgac attcatttaa atttectaatt gtctttttat agtttgatag ctttttttta 120
ttcttttaatt ttttttttct ctgctgcctc tcttaattgca gaaagctcat ttattttttag 180
cacatttcat ttgatattc cattatctgg gtgtaccaga gtttctccat atcacctcga 240
g 241

<210> 945

<211> 355

<212> DNA

<213> Homo sapiens

<400> 945

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atatgtcttc tactttgctt ccttcattct actactgaga gaggtacttc gacctgggtg 120
cctgtgggtt ctaaggaatt tgaatgatcc agatttcaat ccagtacagg aaatgatcca 180
tttgccaata tataggcatc tccgaagatt tattttgtca gtgattgtct ttggctccat 240
tgtctctctg atgctttggc ttcctatacg tataattaag agtgtgctgc ctaattttct 300
tccatacaat gtcattgctc acagtgatgc tccagttagt gaactgtccc tcgag 355

<210> 946

<211> 187

<212> DNA

<213> Homo sapiens

<400> 946

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gactctttta aagaaaaaat attcagtctt taacactcgt taaagcatgc aaaggaagac 120
tttattcagg atcatcgtga taggtattgg aagcacagca gtgagatttt gcaatggggc 180
actcgag 187

<210> 947

<211> 298

<212> DNA

<213> Homo sapiens

<400> 947

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gtgttttagct ttgtcactac acttaaggag ggcatttttt attttaaac aaaggggac 120
gaaaagctta gtgaggagtt tagaagcctt accctttcaa gaagtgttga tgggaattgaa 180
gacaaaccca ggagaaggga acacgagggt gaggagaaca ggggtggcctt cagacaccca 240
ggccaacaca tgtcaagggt tagacttact ggaaaactcc agagcgctga acctcgag 298

<210> 948

<211> 214

<212> DNA

<213> Homo sapiens

<400> 948

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atcctatatt gtctcctaaa agttttatag cctagccttt tacatttagg ttcttaattc 120
ttaatccacc tgggaataagt ttttgtatat ttttaaaagt agaggtttta tctcattttt 180
cccgatagat atgcaattat cctgtacct cgag 214

<210> 949

<211> 216

<212> DNA

<213> Homo sapiens

<400> 949

gaattcgagg cgcgctcgac tgcagattgg ctccgagccc ctgacacccat gtatttgggt 60
gactttgtga agccagaatt tctcttgctt aggacacttg ctgatgcct gattttgtgg 120

gatgatattt taccaaatc caagtgggtt gacagcaatg ttctcfaat tataagagaa 180
aatagtatct ctctcagtga aatcgaatgt ctctgag 216

<210> 950
<211> 272
<212> DNA
<213> Homo sapiens

<400> 950
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ttacaaaatc attctatatt actttttttt tttccagcc ctttacagct gtctcaccta 120
ttcataattc agtagcagct ttttctttta gatactcacc ttttttgcac tcatgtttca 180
ctagtattatg cagtaattta gataatttag ttactagcgt gagtacacct accacaaaca 240
acatgggaat aaacaaaacc gaatcactcg ag 272

<210> 951
<211> 224
<212> DNA
<213> Homo sapiens

<400> 951
gaattcgcgg ccgcgtcgac atataagagc acgtttgttaa cttgaaagag acaaaggcac 60
aaatgtggct gttgattaat ttgactgctt ctctgtgtct gtcacctcca tgccatgcac 120
tgtgtttgct aattgcttta tgggggcatt ctcttattta tttcccagcc ctgggaaata 180
ggagctgtca ttatctttct ctttctgcac aaggaaaact cgag 224

<210> 952
<211> 164
<212> DNA
<213> Homo sapiens

<400> 952
gaattcgcgg ccgcgtcgac gggggagcag gataaaagcg gtctttcagt ttttattata 60
tgtcattctc ctatgttttt caaatcatta ttctatgtct cttctcagta aggcctatcc 120
tgaccaactc atctaaaatt acaacttccc accacactct cgag 164

<210> 953
<211> 210
<212> DNA
<213> Homo sapiens

<400> 953
gaattcgcgg ccgcgtcgac gcattttgtg ttttctacg ttggtcattt cagccaggta 60
tagttttctg tgttcacctg gtattttctt cagacaaaaa tcatgaaaaa gcgaatgcaa 120
aatttcagta tgttcaaatt gtttcttagt atatcggtgg ctttggaatg catttgcat 180
ctcaaaaaca gtttcacagc aaaactcgag 210

<210> 954
<211> 191
<212> DNA
<213> Homo sapiens

<400> 954
gaattcgcgg ccgcgtcgac ataaaattac gtcattattc atttgttcat tcattcaaca 60
aatttttgat gaagtataat aatagtataa gcataacaac tgctatttat tgaacactta 120
atatgtcca ggttctaata tacatactct actggctgta tctacacaa aacacacaac 180
aagcactcga g 191

<210> 955
<211> 195

<212> DNA

<213> Homo sapiens

<400> 955

gaattcgcgg ccgcgtcgac atttcttatt agccaatatt tattaagcat ccgctgagaa 60
ctttcctgtg cattggggtt acgggaggat ttttttctgt taagtgtgat tacactgcc 120
ttcttgaact tgtttctcac ttaggagaaa caatttgagg gtaatatgaa cagaatatt 180
gtgagcatac tcgag 195

<210> 956

<211> 231

<212> DNA

<213> Homo sapiens

<400> 956

gaattcgcgg ccgcgtcgac ctacttacta aattgagttt ttaaaaagac ttagtgtgac 60
atttgacagt gtctttcaaa cgaacttctc taacaagttt atagttattt tcctgtttca 120
acactattag aagtcttata aattatgcta attagcatgg cagtcattgt acacactctt 180
aacattgcc aagaactgtt gatttcgtt gagaaaacc caggactcga g 231

<210> 957

<211> 214

<212> DNA

<213> Homo sapiens

<400> 957

gaattcgcgg ccgcgtcgac cgagatccac ggctgcatcc cctacgaacc ccatgaaatt 60
cctgaggaaat aaagcaataa ttcggcatag acctgctctt gttaaagtaa ttttaatttc 120
gagcgtagcc ttcagcattg ccctgatatg tgggatggca atctctata tgatatatcg 180
actggcacag gctgaggaaa gacaacagct cgag 214

<210> 958

<211> 183

<212> DNA

<213> Homo sapiens

<400> 958

gaattcgcgg ccgcgtcgac taattacctg aagctttagt aataaagaac taattttttt 60
tgtcagttac cacattttgt ttttagctt aagaggtag tagtgcacaa tactgaggct 120
aaaggttaag caagatttcc aggtttacag agatattaat taatctggat gaggcttctc 180
gag 183

<210> 959

<211> 199

<212> DNA

<213> Homo sapiens

<400> 959

gaattcgcgg ccgcgtcgac atttgcgttg actgtggatt tctctctgcc tttggaacat 60
ttgtgcaagg atgagagggg atagtttaga tcctctaact gcatatgctg taggtataa 120
agccacagta atgtgtttcc tttgcagttg tgccttctat tccttctcc agactagctc 180
tgatagggaa gctctcgag 199

<210> 960

<211> 195

<212> DNA

<213> Homo sapiens

<400> 960

gaattcgcgg ccgcgtcgac cttttttaat actatgaaga aaccaaggca gaattacgac 60

ctctggttct tttctttttt ttctttttta gacaggttgc gttctgtcgc cctagctgga 120
gtgcagcggg gtgatcacag cacactgcc a cctccacett tgagggtcaa gcagtcctcc 180
catctcaagc tcgag 195

<210> 961
<211> 161
<212> DNA
<213> Homo sapiens

<400> 961
gaattcgcg cgcgctcgac ctcaaattta aaaaaaaaaa aaagaagaag aagaaaacta 60
gtgggaaaaa agtgagagga atactttttt gaaattggtg tcggaaggaa ctggagaaga 120
gaaaacaaca gtgccaatg agaaaagaac agttcctcga g 161

<210> 962
<211> 252
<212> DNA
<213> Homo sapiens

<400> 962
gaattcgcg cgcgctcgac caaagagtct tgaattcttt tgttttccca gtaccaaatt 60
tacttttagt ttatctatga aatggtgata aactttcggt gtaagtatca ttgatagca 120
ttgaagtatt taactttttt gttggagcca gagtctcagt ctaggttggg gtatagtggc 180
gccaccggct ctatcttagc tcaactgcaac ctccatctcc caggttcaag cagttctcat 240
gccttactcg ag 252

<210> 963
<211> 153
<212> DNA
<213> Homo sapiens

<400> 963
gaattcgcg cgcgctcgac tgctttgtgg acacagattt tcagggagat ttaggggaga 60
gaaacttacg agtgaatgag atactttatt ctaaacagtt tgaatgtcat tgtgattttt 120
ttgtctttag ttgatgatgg tgaggtcctc gag 153

<210> 964
<211> 216
<212> DNA
<213> Homo sapiens

<400> 964
gaattcgcg cgcgctcgac gccaatcct ttttttttca gggccaattc ttaatacatt 60
ttaaggattt gtgaacagat gggctgcact gcatttgtgt tgatcatgat gttctattct 120
agacaactaa gaatgtcaaa aagcttecta tcttatgaca actccagtc agtgatggcg 180
gtcacttggg gactgggtt agaaagaaaa ctcgag 216

<210> 965
<211> 241
<212> DNA
<213> Homo sapiens

<400> 965
gaattcgcg cgcgctcgac ccctaaacat gttaccaggt cttatccatt ccccgtaatt 60
ttgcaccacc cccaaacact acattcgctt tggctcacc tttatccctg agagacgtcg 120
aaggccctct ctgctgatg gcacattcag ctccgtgaag aaggtatgtc tgtgtttttg 180
tgtgtgtgtt gtgtttatgt gtgtgtgctt tttttttta agcctaagat tccagctcga 240
g 241

<210> 966

<211> 252
<212> DNA
<213> Homo sapiens

<400> 966
gaattcgcgg cgcgctcgac ggaaaaggaa ttctccaaaa aggtgaccca gagcatttgt 60
tttgaccag ctttgccctgc cactgagtt cctttgacca gggttgctg taaatcttcc 120
agggagattt caacacttgt ttgtcttaaa tactttctgc tatcatctca ttgccatcca 180
ctcttcttcc agggctctgga tatattttgg aaagggtatt agatgaaact ctattttgct 240
gtggtactcg ag 252

<210> 967
<211> 140
<212> DNA
<213> Homo sapiens

<400> 967
gaattcgcgg cgcgctcgac atagctttgt agagtgaat cgactgttaa agtgggtgtcc 60
tgccccagat tgccaccatg ttgttaaagt ccaatatcct gatgctaaac ctgttcgctg 120
caaatgtggg caatctcgag 140

<210> 968
<211> 180
<212> DNA
<213> Homo sapiens

<400> 968
gaattcgcgg cgcgctcgac attaattatt gctatgtctt ttactttgct ttattttcta 60
tcttcattga ttaatttttt ccaaatgatt ccagaatctg ccacacacct accattcat 120
tttceccacc aaatgctcag ttgtgtcagg ccactgtgct attccccctg caccctcgag 180

<210> 969
<211> 475
<212> DNA
<213> Homo sapiens

<400> 969
gaattcgcgg cgcgctcgac atctactat gttgacagac atgatgaaag ggaatgtaac 60
aaatgtcttc cctatgattc ttattggttg atggatcaac atgacattct caggctttgt 120
cacaaccaag gtcccatctc cactgacct cgtttttaag cctatgttac agcaagggaat 180
cgagctactc acattagatg catcctgggt gatttctgca tcctgggtact tctcaatgt 240
aattgggctt cggagcattt actctctgat tctggggcaa gataatgccg ctgaccaatc 300
acgaatgatg caggagcaga tgacgggagc agccatggcc atgccgcag acacaaacaa 360
agctttcaag acagagtggg aagctttgga gctgacggat caccagtggg cactagatga 420
tgtcgaagaa gagctcatgg ccaaagacct ccacttcgaa ggcattgtcc tcgag 475

<210> 970
<211> 133
<212> DNA
<213> Homo sapiens

<400> 970
gaattcgcgg cgcgctcgac ctccaatcct tcttatgcat ttccctctct tctcctact 60
atacaggtgt ccctgccctg ccagccactc gggcaacttc ccccatctcc ctatactcc 120
aaacactctc gag 133

<210> 971
<211> 132
<212> DNA
<213> Homo sapiens

<400> 971

gaattcgcgg ccgcgtcgac ctgatttttc ctctacata gttgtatggt gttatttttag 60
cttgcttttt tatgacagtt tcaggcacat tttatatggt aattaagcat gcatatagcc 120
agctttctcg ag 132

<210> 972

<211> 188

<212> DNA

<213> Homo sapiens

<400> 972

gaattcgcgg ccgcgtcgac tctgacaatc agtttatgtg aatacatggt ttatggatta 60
aaatattaga ttattattat atctctctaaa tgaattggct tgttateggt atgaaatggc 120
cccccttctc cttagtaatt tttttttgtt ctaaaatgtc ctttgggtatt gatgcagccg 180
tgctcgag 188

<210> 973

<211> 156

<212> DNA

<213> Homo sapiens

<400> 973

gaattcgcgg ccgcgtcgac gtgagatgtg agattgaaaa agtgtaagat gtcagttaag 60
attacaataa aaactggaag tatattcttt tttcttttat cgttattata tttatatttt 120
ttcaagacag ggtcttgctc tgtccccaga ctcgag 156

<210> 974

<211> 189

<212> DNA

<213> Homo sapiens

<400> 974

gaattcgcgg ccgcgtcgac atctacctca gttaaacagt tgggtgctat tactaagtct 60
gtcaaatata attggaaaaa gtaaccaaac agtgagatag aactccacat gaaacttgaa 120
attgtaattt ccgtttattt aatgatattt ttattttatt gtgcctttta tgttgaaccc 180
cttctcgag 189

<210> 975

<211> 175

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (56)

<220>

<221> unsure

<222> (82)

<400> 975

gaattcgcgg ccgcgtcgac ttattgtatg atttattttg gagttatatt ctgatnacag 60
tgctccctct cccaaatagc antgattttt tccccctct aaaaagtata atctgggtctc 120
aggttggatt ctttgggtaca tttctctctt ctggatgccg tgcagcgac toag 175

<210> 976

<211> 223

<212> DNA

<213> Homo sapiens

<400> 976

gaattcgcg cgcgctcgac aaatttttagt tgtcccgga gttcttttgt atctgaaacc 60
tcagtgtgca agcttggaat tctgtacttt taaaatatcc tcaagcgatt ctgattacac 120
atcagggttg gaagcacttg gcataaagaa cttccccac ccaattcaaa gaaatagtat 180
ttaagccctc ataattgtgca gtgtgggttaa actgtgtctc gag 223

<210> 977

<211> 173

<212> DNA

<213> Homo sapiens

<400> 977

gaattcgcg cgcgctcgac gaaatgtctt gctctcttct cttttcttg ctgtccctgg 60
ggctggagga gcacgggcct ccccgaggag gggcttcagc ctccctagac tctgtctctc 120
ttccaagggc taggcctggg ggaccagaag caagagtccc aagcgtctc gag 173

<210> 978

<211> 148

<212> DNA

<213> Homo sapiens

<400> 978

gaattcgcg cgcgctcgac attggtacca ggcacttaca aagctaaatt ttccgatgtt 60
cctttcacca gcatactctc ttctcagttt attcattgat gcagaaagca ggcagctggt 120
cacgggtgt gctgacggcc aactcgag 148

<210> 979

<211> 224

<212> DNA

<213> Homo sapiens

<400> 979

gaattcgcg cgcgctcgac atttattaat ctaggaaagt taaatagtcc cttgaaacaa 60
aaatttttag ctgaatttat tgaaattata ttgttaaat gattacaatt tgaaaatact 120
cgtgtttga tgttaggctg aacatgaaaa ctttttattt gaatcagatt tttttttttt 180
taagtittgt ccatcaacta aaggcacaaa cagacgacct cgag 224

<210> 980

<211> 135

<212> DNA

<213> Homo sapiens

<400> 980

gaattcgcg cgcgctcgac cgactttatt aaatctatga aaaatattta tattattgga 60
ttattatggg cttgctcgac atggactatg gcgatacag tctgaactga taaagcaaca 120
acggtacaac tcgag 135

<210> 981

<211> 234

<212> DNA

<213> Homo sapiens

<400> 981

gaattcgcg cgcgctcgac ttctagacct gttcttttta ggcatactat attcatgcta 60
ttaagggtaa ttgtgagat gcgagtaaat ttcttttct ctctctgttc atcaattgct 120
ctcttttct ctatactgc caaacaggc actgctttcg atctccgtgg ttcatttaac 180
ctcttttctg atttctcatt tccaaattct gctcacgacc cccacactct cgag 234

<210> 982

<211> 189

<212> DNA

<213> Homo sapiens

<400> 982

gaattcgcgg ccgcgtcgac ctctgacaaa tagctcagga tgagtggag aaaatgggct 60
ttgatgtctc tcacaactgc agtgggaatt ttaggagga caatttgcca agaagatggg 120
gcaggatttg aaaggatttg ggaggatggg gagtgtgtg cagagaaagt ttaggaagc 180
gacctcgag 189

<210> 983

<211> 211

<212> DNA

<213> Homo sapiens

<400> 983

gaattcgcgg ccgcgtcgac ttgaattcta gacctgcctc gaaaagctgg agagctgaca 60
aggaaggttt cgagcggttt gctggcaaag ggatttctta caacctccag gcatgctct 120
ttctgccctg ctggccttg catccaaggt cactctgcc cccattacc gctatgggat 180
gagccccca ggctctgatg gcagactcga g 211

<210> 984

<211> 185

<212> DNA

<213> Homo sapiens

<400> 984

gaattcgcgg ccgcgtcgac cgcattctgt gagcaatgtt gacaatctca tcaaaagtga 60
tattccact gtgtttaatg ttttctgtt tcttctgtc tcttgggtt tccttgaggg 120
ctttgatgat cagggcagag gcagaaggca ccaccaagag acagaaagaa acagaaaaac 180
tcgag 185

<210> 985

<211> 291

<212> DNA

<213> Homo sapiens

<400> 985

gaattcgcgg ccgcgtcgac agaacctgga aaaattaacc acatgagata cgatacacta 60
ccccagatgt tgacgttggg aaatatccgt gctggcaaca aaatgattgt gatggaaacg 120
tgtcaggct tgggtctggg tgcaatgatg gaacgaatgg gaggttttg ctccattatt 180
cagctatacc ctggaggagg acctgttcgg gcagcaacag catgttttg atttccaaa 240
tcttttctca gtggtcttta cgaattccct ctctacaag tggcactcga g 291

<210> 986

<211> 152

<212> DNA

<213> Homo sapiens

<400> 986

gaattcgcgg ccgcgtcgac gaccacccag gtaatccaca agattcttaa ttatatctgc 60
aaagattcct ttctcaaatg agaccatctt tacagattct ggtgattagg atatggctat 120
atctttttat cttttgttg gggaaatctg ag 152

<210> 987

<211> 235

<212> DNA

<213> Homo sapiens

<400> 987

gaattcgcgg ccgcgtcgac cattataggg tgactgtaag actcaaatag agccactgcg 60
cccagcctag gaagccctaa gttttaaaaa ctttttaaag tttaaatata gcaagagct 120

tcatacaaac atttaaatc ggcaataag tgctattaca gagatgcata gatttgttt 180
tccttttctt actttccctc tcttccctct tcttccctt tcttccccc tcgag 235

<210> 988

<211> 171

<212> DNA

<213> Homo sapiens

<400> 988

gaattcgcg cgcgctcgac ttctattaat ctttaattccc ccattttgtt tctgtgatct 60
gctatgacat tacaaaaaaa attggtttat ctittctctt tegttttcca gtgcctttat 120
tgcattggaac agtatccctt gcaccacgc ttcaccocgg ttagtctcga g 171

<210> 989

<211> 174

<212> DNA

<213> Homo sapiens

<400> 989

gaattcgcg cgcgctcgac ctcaaaattt ttgttttttg ggctccgttt tgttgagggg 60
ggctgttttg agaccagtt gctcatggtt ttaattctga cacatttaag tgggtttttg 120
ttttgtttgt ttctgagggg tgggggtgtt ctctgttgcc caagctatct cgag 174

<210> 990

<211> 207

<212> DNA

<213> Homo sapiens

<400> 990

gaattcgcg cgcgctcgac gcctgtccct cctccgtaat agctcagcac ctacacatg 60
cttccgactc agcctgtgct ttgcaactt atttgcttac ctattttctt ttcccaetcc 120
tccatgactt tgtggaaggc aaggacttta tctcaggatt tctctatcac cagacctagc 180
ttggggcagc aaagcaggct cctcgag 207

<210> 991

<211> 169

<212> DNA

<213> Homo sapiens

<400> 991

gaattcgcg cgcgctcgac attttgtgtt ttgttttca ttcattctca agtattttct 60
aatttccctt gtgatttctt ctttgacccc ttgattgttt agaaatctgt taatttccac 120
acatttgtaa atgttccaat ttttcttttg ttattgccag ctctcgag 169

<210> 992

<211> 181

<212> DNA

<213> Homo sapiens

<400> 992

gaattcgcg cgcgctcgac cctaaaccgt cgactctagt cagaagttat ctgagcaaag 60
agaaaataaa gcctggcgta gacagtccca tagaaaatag aatccatagc cactgggctg 120
cccttcaatt tcccaattca ttccactaag tctcatgatg caaatctgtc accttctcga 180
g 181

<210> 993

<211> 355

<212> DNA

<213> Homo sapiens

<400> 993

gaattcgcgg ccgcgtcgac gtggctctgt aatgctaaca agaagtctga aaaccctgcc 60
aagcgctgt actgcttttt tgcttctctt tttttctgtt ctgcgtccggg gatcccgagc 120
tgctctgacg ctgtaccctg agaactcaga gcagttggag ctgatcaca cccaggccac 180
aaaggcaggc ttctccggtg gcattggtgt agactaccct aacagtgcc aagcaaagaa 240
attctacctc tgcttgcttt ctgggccttc gacctttata ccagaggggc tgagtgaata 300
tcaggatgaa gttgaacca gggagtctgt gttcaccaat gagagagtcc tcgag 355

<210> 994

<211> 249

<212> DNA

<213> Homo sapiens

<400> 994

gaattcgcgg ccgcgtcgac ctgcaatggc tgggtaaaat tatttcattt ctgaaaaatc 60
aagaacaccc ttcatatacc attctctgcc acttccctcc tcccaaaacc ctaaaataat 120
acaactcagg ccgggcacgg tacaatttaa tttaacacat cttttgataa tctcatcctt 180
ggtgttgaa aagacgggaa aatccaaaag tgtctatttt gtgcccaat gctcaagtta 240
atactcgag 249

<210> 995

<211> 346

<212> DNA

<213> Homo sapiens

<400> 995

gaattcgcgg ccgcgtcgac cttttctgct ctgttttgtt ttccctgcct gttgcgtgca 60
agggaggtgc ttgtaaagt ctgtgtctac agatttttaa aataaaaatc gcttcgcagc 120
aggttctcac aaaataactg gtgttagctc aagaatcat catctgacca tcagaaatct 180
tgactaaagg tgttgcatgg atttgggggt ctttcgggtt ttggttttgg gtctggcttt 240
tagcagggcc aatgtttccc acaccccggc ttcattggta ctgctttgct ttctcaccaa 300
ggtgacgatg gtgtgcgtgg aaagagatga taccacaccc ctcgag 346

<210> 996

<211> 147

<212> DNA

<213> Homo sapiens

<400> 996

gaattcgcgg ccgcgtcgac gctttgatgt atagattaca ggtttcatca accttccaaa 60
gttttcagcc attgtttctt caagtatttt gttttctac tctttctctt ctttctcttt 120
ctaattgctc ttaccctgat gctcgag 147

<210> 997

<211> 329

<212> DNA

<213> Homo sapiens

<400> 997

gaattcgcgg ccgcgtcgac aaattattaa gggtaagta aggagtttta aataccaata 60
aaatcttatt tataacacca aacctcagaa gtccttctc ttggcaatag ttttattgta 120
ttggtttaat ctgatattta atcttctgta ttatagtaag ctgaaaccaa aattgagaca 180
tgattgtttt atgtttgttg ctattttttt tgaatttttt tttttttttt ttaagacaag 240
gtcttgcata gttgcccaac tggcctcaaa ctctgagct caaagtgat cctccacatg 300
ctctccccc atcacatcac agtctcgag 329

<210> 998

<211> 293

<212> DNA

<213> Homo sapiens

<400> 998

gaattcgcg cgcgctcgac atattttcta ataaatactt gacgggtttt tgcctggcag 60
 gttccaaat ttgccaaaat taagcgttca gtattttcaa cacatagct tttactggt 120
 ttatactgaa ctatctgatg agaattcctg tttcccaaa gcaactgatg tttacaggtc 180
 ttgtgtttct cctcctcctt tctaaggatg agggaaatcca caacagactt tctctagaaa 240
 acactaatga tggacaactt tttggtgtca tcaatgagtt ggctactetc gag 293

<210> 999

<211> 158

<212> DNA

<213> Homo sapiens

<400> 999

gaattcgcg cgcgctcgac cttattcgct gaactcaggc atttccactt gcattgtcca 60
 cagttgagtc aggacccata atttcttctt gctttcccat gctattcctt tcttattga 120
 caaatgccat catcttttct ctcactgctg cactcgag 158

<210> 1000

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1000

gaattcgcg cgcgctcgac tttttaaatg aggttattta aatgttaaag aaagttttag 60
 tggtcgcatt attggggtta tcttcaactg catttgcagg aggttttcaa attaaagtgg 120
 gtgcgagttt aattgaccca acagcactcg ag 152

<210> 1001

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1001

gtgactctca tctattaacc taagccagaa atcaaggagt catttttagat acttctctcc 60
 actccttacc atctggctag ttctaatga aatgatggtc attttcttaa tttttctact 120
 tgcctctaaa tttactgcat atgattccat tcccttgat actgctagag tgaatagtca 180
 cctcagcaac ctcgag 196

<210> 1002

<211> 311

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (280)

<400> 1002

gaattcgcg cgcgctcgac aactttttca gcaactaaaa aagccacagg agttgaactg 60
 ctaggattct gactatgctg tgggtgctag tgctcctact cctacctaca ttaaaatctg 120
 tttttgttc tcttgtaact agcctttacc ttctaacac agaggatctg tcaactgtggc 180
 tctggcccaa acctgacctt cactctggaa cgagaacaga ggtttctacc cacaccgtcc 240
 cctcgaagcc ggggacagcc tcaccttgct ggcctctcgn tggagcagtg ccctcaccaa 300
 ctgtcctcga g 311

<210> 1003

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1003

gaattcgcg cgcgctcgac gaggaatggt agtattctct tatgaaatag taagtttggt 60
 atcatttgca gttttctggt tatggtctgt cagagcagtg acttcagagg ggcaacctgg 120
 acagttgact gctcccata ccaaaaccaa actacacaca cacacacgtt cccaaactgc 180
 accaaggcac cccaaagcac cactcgag 208

<210> 1004

<211> 223

<212> DNA

<213> Homo sapiens

<400> 1004

gaattcgcg cgcgctcgac agtttttggg ctgtgaattt aatgttttag gaagttccca 60
 ttttaagattc ttttaaatgg tttctctgt tgtgcttita ttcctttata ttaaaactct 120
 tgatttatct aaaattactt ttgtgaaaga gtgttatagt gagaatagct ttttagagaa 180
 aacaaaaca aatggtttga atattgtcc caacactctc gag 223

<210> 1005

<211> 166

<212> DNA

<213> Homo sapiens

<400> 1005

gaattcgcg cgcgctcgac tgggcattac tatgttagtt ggaataactg gactctttta 60
 cactcaacta attggcatca tcacagatac aacatctatt gaaaagatgt caaactgttg 120
 tgaagatata tcgaggcccc gaaagccatg gcagcagcac ctcgag 166

<210> 1006

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1006

gaattcgcg cgcgctcgac gaacaacgtg ggctttcatg atgtatgtac ctttctcttt 60
 cttttgttgc atgtggggga cagtattgct tcaactaatg tttattactt taaaacacga 120
 aaggtatgag gaagtaaacc aaaacagtc acagctctca aacaggaccc tcgag 175

<210> 1007

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1007

gaattcgcg cgcgctcgac gggaaaacaa agaaacaaac tataaaagaa agcaaagaaa 60
 atctttgtga tttgggtgca gagataggac tccaaaaaca taagaaaaaa actggtaaac 120
 tgaataaatt gataaactgg acttcacaaa aattaaatac atttactatg aaaaaaacag 180
 tgctactcga g 191

<210> 1008

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1008

gaattcgcg cgcgctcgac ccaggatttc aactatactc atccacagac ttttccatt 60
 gggtagaagt tgaaacagaa ctgacagaac caggatttga ataccagcct tttgactcca 120
 aatcagggac aagatgcagt tttgtatgtt aattattttt attggttttg atattgtggc 180
 cccactcgag 190

<210> 1009

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1009

gaattcgcgg ccgcgtcgac ttcaatctct agaggtttgg cagtttcttt ttatcaaatt 60
 ctcccttaa taagctgcag cctgtgaatc tcaaaataat ggaagtttta aaaacagaaa 120
 gaaaaagatt ttatttttta tttttttatt tttatttttt taagacaggg tcttgctctg 180
 ttgccacagg tggaatgcag tggcacaatc gcggtctcgt gcggcctcaa tctctggggc 240
 tcgag 245

<210> 1010

<211> 183

<212> DNA

<213> Homo sapiens

<400> 1010

gaattcgcgg ccgcgtcgac tgaagtcttg aaaaaattt taggagattc ctgctttcta 60
 ggggtgctgaa gaaagactac ttaaaatcac tatttaatat tacagtaaat aggagatacc 120
 tgtattttga actttgcata aaattgatgt tcttttatgg ttaaatttag attaatactc 180
 gag 183

<210> 1011

<211> 141

<212> DNA

<213> Homo sapiens

<400> 1011

gaattcgcgg ccgcgtcgac ccagactctc atatccatgg ctttcttggt ttataaaata 60
 gtatacttac tgtgccttaa acagaacttg gatccctctc atttccacta cattcctcct 120
 tgtcctcgta aggacctga g 141

<210> 1012

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1012

gaattcgcgg ccgcgtcgac cttgtatgtg tcatttgagt gggttccaga ttggagcgag 60
 gttattctga tctaaatgaa cagcattttt ttccttagcc tctgtttgcc actctgggta 120
 tctctcctat gggcaaagcc attagaaatg catccactcg ag 162

<210> 1013

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1013

gaattcgcgg ccgcgtcgac atctttttcc tgtggctgct tcaaaaactt tgtctttgag 60
 caatattact attatgtgtc tagatatagt tctttttttt atccagcttg ggattcttag 120
 aaattcttca tttttagtgg tgatgtcttt tgaaagtttt ggaaaattcc cagtcagaat 180
 atcctcagat catgtttcta tccccaattc tctcgag 217

<210> 1014

<211> 265

<212> DNA

<213> Homo sapiens

<400> 1014

gaattcgcgg ccgcgtcgac actgatatac gatagacagc acatatataa aacgtaaaat 60

ttgataagtt ttggcatatg tatgcacatg caaaaccatc accataatca agaccgataa 120
 cataccatc atccataaaa gtctcttctt gtccctttgt attcccttat taagaaacta 180
 ctaaattgtt aagtatttgt gctattttcc attcctatca gcagtacatg ataattctcc 240
 ttgttccata tcgtctgagc tcgag 265

<210> 1015
 <211> 127
 <212> DNA
 <213> Homo sapiens

<400> 1015
 gaattcgagg ccgcgtcgac caaggacttt cccatttga agtcttcagc agaccgagca 60
 cacagttcca agtatcttt aagaagcaca ctctagatgc agaatgaaga ttactattt 120
 gctcgag 127

<210> 1016
 <211> 231
 <212> DNA
 <213> Homo sapiens

<400> 1016
 gaattcgagg ccgcgtcgac gcctggctag ttttaagggt ttttaacagg cattgagaca 60
 tctataatgg tctgtctgt tttggatctg actcaaactc agccctgcct tctattttt 120
 tttctttttt tttttttttt gaggcagtct tactgtatgg ccgaggctgg agtgcagtgg 180
 catgatcttg actcaatgca acctgtcttt cgggttcaag tgattctcga g 231

<210> 1017
 <211> 209
 <212> DNA
 <213> Homo sapiens

<400> 1017
 gaattcgagg ccgcgtcgac agcttaatcc tttctagctt ctgattttaa gtgagagaca 60
 tgagactctt cctttcactt gtatacttag gggccattgt cgggttattc attagcttaa 120
 tttcaatatt gttgtgtctc aggagtagga atatccaaag agagggagaa agacttgggg 180
 agcagctggg cagtgaaca actctcgag 209

<210> 1018
 <211> 205
 <212> DNA
 <213> Homo sapiens

<400> 1018
 gaattcgagg ccgcgtcgac ataacccttt aatggctccc tatgcccag gattaagtcc 60
 aaacaccatg gtgtggcatg tgagaaagtc ttcctttgtc tggcttctgc agtcttcag 120
 cttcatctct tgccactctg tcactctctg gtcccagtg catgtcccat ggacacagt 180
 tgcagtcata ccccaattc tcgag 205

<210> 1019
 <211> 218
 <212> DNA
 <213> Homo sapiens

<400> 1019
 gaattcgagg ccgcgtcgac cttcatcccc accttcttc tcactcttc tacagtttga 60
 tctgtctggg caatttcac cacttctag gcttcagttc tcaacctct actgatgatg 120
 actcccaaat gtttatccct gccctgacta cctacctgt atgtctttct gaataaacg 180
 ctcttaatcc caactgttta ttatactcat ctctcgag 218

<210> 1020

<211> 259

<212> DNA

<213> Homo sapiens

<400> 1020

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctgacctgc cattcaacc 60
ccctcatcac actctcacac tttctgagct gagatccaca gtaaggaata cactgtttca 120
tcttcgccct aggcacatac tctcatccgc agctgaaatg cagtttcaga atgtgaatcc 180
ttatttcacg tctgtgtgg tgatgttttc tgttttctct ctgcctcct cctcagcatt 240
ggctacacac ccaactcgag 259

<210> 1021

<211> 165

<212> DNA

<213> Homo sapiens

<400> 1021

gaattcgcgg ccgcgtcgac gcccatagga gttgaaaaat cctgctgctc tcagctatat 60
ttttttctcc attatttata aatgtttgct ttttaactga ttttatttc cattctcccc 120
tggagtggg ccaggggaga gtgggggtggg aagacagatc tcgag 165

<210> 1022

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1022

gaattcgcgg ccgcgtcgac ttttaagttc tagagatcgg gtctcgttat gttgcctagg 60
ttgattttga actcctgggt ctgcctcagt ctccaaaat gttgggatta caggcatgag 120
ccaccttgc cttcccgaaa ctgccatac gttttccgta atagctgcat catcttacat 180
gccctgtgc tcgag 195

<210> 1023

<211> 143

<212> DNA

<213> Homo sapiens

<400> 1023

gaattcgcgg ccgcgtcgac aatcattcca acaatatttc tgtgattgtc tgtaacgaac 60
tactttttct gatttttgat cagtgatcct tgactataat agaaaagaaa gtttaaattgt 120
tatggaaggt gctggggctc gag 143

<210> 1024

<211> 166

<212> DNA

<213> Homo sapiens

<400> 1024

gaattcgcgg ccgcgtcgac caggaaagca ttgaattaaa ttatacagta ccatttctcc 60
aggatttgag ctaaagagaa tggagctaaa attgcctgct tgtcttgta ttacctatt 120
tctaattctg tcattttctt tccaaaaaa tcacgcatac ctcgag 166

<210> 1025

<211> 164

<212> DNA

<213> Homo sapiens

<400> 1025

gaattcgcgg ccgcgtcgac attggaataa tcattccagac agaaagtcag caaacatctt 60
acttaattctg cagtacagac caaatggacc taatagacat ttacagaaca ttttatccaa 120

tggtcgcaga gtacacattc ttcagctcat ggatcattct cgag

164

<210> 1026

<211> 139

<212> DNA

<213> Homo sapiens

<400> 1026

gaattcgcgg ccgcgtcgac tgacattatt atcaattaac attttacttc ctctagctc 60
tctacatttt cattttctca tctcataaat ctcattcctt atgatttttt ggtggggatg 120
tgttacttac ggactcgag 139

<210> 1027

<211> 174

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (42)

<220>

<221> unsure

<222> (56)..(57)

<220>

<221> unsure

<222> (61)

<220>

<221> unsure

<222> (64)

<400> 1027

gaattcgcgg ccgcgtcgac caaataccct ggttggttg tnacaagaaa gaattnnggc 60
ntanctcaga taaaaagtg gaaaaagaaa cggtataat ccatggggaa gactttctat 120
tctctagctc gtctcctgac ccaaatagct cagctctcct caccctaaact cgag 174

<210> 1028

<211> 169

<212> DNA

<213> Homo sapiens

<400> 1028

gaattcgcgg ccgcgtcgac gtatatgtta attgagacaa gcagggttgta aaatgacctt 60
ctcttcccat tcttctcatg ttgtctcaa aaaagatata cttcttttct ttcttttttc 120
ttttctttt tttagatag acagactctc tctgccccc agactcgag 169

<210> 1029

<211> 265

<212> DNA

<213> Homo sapiens

<400> 1029

gaattcgcgg ccgcgtcgac gactctttag agttttctag gtgaacgatc atatcatcca 60
tcagcaaaaca gtgagtttga cttctcctt aatgatttg atgcccttta tttctttctc 120
ttgtctgatt gctctggcta ggacttcag tactatgttg aagaggagtg gtgacagtgg 180
gcacccctgt ctagtccag ttctcagagg gaatgcttcc aacttttccc cattcagtat 240
tttgttggt gcaggccatc tcgag 265

<210> 1030
<211> 223
<212> DNA
<213> Homo sapiens

<400> 1030
gaattcgagg ccgcgtcgac ctgagtcgtc taaaattctg cttacagtt gcgattattt 60
tcctttgata ttacaatttt gatttatgtt tttataaca cttgtatttt tccttattac 120
cacatcaata tatattcatt gtggaaaact atgtaaaaat gcagaaaaga atacattaaa 180
aaataaaaac tcctgcattt tactccttac tgatactctc gag 223

<210> 1031
<211> 135
<212> DNA
<213> Homo sapiens

<400> 1031
gaattcgagg ccgcgtcgaca aagcttgtga gtcacacaaa caaggatttc agttagatt 60
ttgtctttct tgaacttaaa gaaacaaatg acaagtttg aatggaaaag cctgctgttg 120
ttccccacgc tcgag 135

<210> 1032
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1032
gaattcgagg ccgcgtcgac cccggctttt cttggagccc aagagtttct tgagtgtgca 60
gagaaccctt ctatcatgaa gactttattt agagtcgggc tagggttgtt actgccttta 120
ccaggcttcg tattccttct ctctgtgtct ggcctacctt ctacagtttc tggccactta 180
ctcgag 186

<210> 1033
<211> 165
<212> DNA
<213> Homo sapiens

<400> 1033
gaattcgagg ccgcgtcgac gaaaaaaaaa gtgccttttg ctgcttttaa gaattggggt 60
atatggtatg aagcagccat gtactgttat tttcctgggc tttcctgggc actcttctct 120
cttggcagat gttttcttaa agtgaacaca ccagaagcgc tcgag 165

<210> 1034
<211> 259
<212> DNA
<213> Homo sapiens

<400> 1034
gaattcgagg ccgcgtcgac ctttgatcca tggaaacatt ttataaaata atttccaaaa 60
taatttcctg gaaatctgga attgtagtct gtaccaaatt gggattattt attaatTTAA 120
tttaatttaa tttatgagat cagagtcttg gtatgttgcc ttggctgggc tcgaactcct 180
aggcttgagt gatccttctg cctcagcctc tctagtggct ggaactgtaa gtgcacacca 240
ccatggcaca aatctcgag 259

<210> 1035
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1035

gaattcgcg cgcgctcgac attatttgct gtccttttga attcatttgt ctttttcaga 60
 ttgtggggca ttgacctgt aatactaaca ataatacaata atatcagtc gggataaaga 120
 cacagataaa ttgcatggaa aaaggatggt ggggggatcc atttctggct gtgtatttcg 180
 ctgccttggt gtcacctatcc tcgag 205

<210> 1036
 <211> 171
 <212> DNA
 <213> Homo sapiens

<400> 1036
 gaattcgcg cgcgctcgac ctgtttgtgg tgagggtgaa ttatgtgtgt ttttctagc 60
 ttatgtgtgt cgttttttct ttttgtttct gagaatgctg tgttgagggg gtttttggag 120
 aaaacgggtg ggttggggag ttgtagtact tcaaacaag gtgaactcga g 171

<210> 1037
 <211> 251
 <212> DNA
 <213> Homo sapiens

<400> 1037
 gaattcgcg cgcgctcgac ccgttttccc attcaacag ttacttcagg tttaaagtc 60
 tttttatctc tgtaacctgg tgacataaag ccaggaacat tttcccacaa tccaccttag 120
 cataaaacat aacaatttca ttcatcagtt gttattgtgt agaaccaatg aacatgttgg 180
 tcatttgtct gtatttagtc tttatttga ttgctatatt tgagcattcc aagattgcag 240
 aggtctcga g 251

<210> 1038
 <211> 159
 <212> DNA
 <213> Homo sapiens

<400> 1038
 gaattcgcg cgcgctcgac cccatatatc acaagcaata tgggaagaat aaaaaaagta 60
 aacctattat tattatattt gagatatggt ctctctcacc caggctggaa tgcagtgggt 120
 caatcacagc tcactgcagc ctcaatctcc aagctcgag 159

<210> 1039
 <211> 188
 <212> DNA
 <213> Homo sapiens

<400> 1039
 gaattcgcg cgcgctcgac cttaaatttt tgcattcatta ttgcatatc tttgagacaa 60
 caaaaatttg ccttttttta gttttttttt tgttgttggg atctaaaaga ttcttatatg 120
 taaatacaaa tattacagag aaagtgaata tgatagccaa aatgtggatt atgaggatac 180
 cactcgag 188

<210> 1040
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 1040
 gaattcgcg cgcgctcgac taaataaata aattaattaa ttaataaagt aataataata 60
 ataaagccca gcttgggttg tgtgctgtag gtatgatattc atgttcaagg ctctgtctct 120
 tcttgacctc cgaactgttg tcataaaatc attcattcat aactaaacc atttgatatg 180
 tatttactga atcccctact cctcgag 207

<210> 1041

<211> 177
<212> DNA
<213> Homo sapiens

<400> 1041
gaattcgcgg ccgcgtcgac acccctcacc cccaaccct caaccttata ttaccttgaa 60
attccaccga tgctatatcc gggtttgttt gcaactttca agtgggtatt atttccgtta 120
gctttggagg aatattcttg tgatcacgca atcaaccatc atgatagaaa cctcgag 177

<210> 1042
<211> 172
<212> DNA
<213> Homo sapiens

<400> 1042
gaattcgcgg ccgcgtcgac ccactttttg gagagtagca aatctagctt tttgtacag 60
acttagaat tatctaaaga ttctatcttt ttacctcata tttcttagga atttaagtgt 120
tatatgttgt ctttttttcc tatgtctttt ggctcaagca acgtcgctcg ag 172

<210> 1043
<211> 378
<212> DNA
<213> Homo sapiens

<400> 1043
gaattcgcgg ccgcgtcgac cagtcaggcg ctgtggctca cgcctgtgat cccagcactt 60
tgaggaggcc aggtgggcag atcgectggg gtcgggagtt tgagaccagc ctgaccgaca 120
tgagaaacc catctctgtt aaaaatgcaa aattggccgg gtgtggtggc atgtgcctgt 180
gggtcccggt actcgggagg ctgaggcggg aggatcgctt gaacctgggg ggcggagggt 240
gaggtgggca gatcgcttgg ggtcgggagt ttgagaccag cctgaccgac atggagaaac 300
ccatctctgc taaaaatgca aaattggccg ggtgtggtgg catgtgcctg tgggtccggc 360
tactagggag tgctcgag 378

<210> 1044
<211> 437
<212> DNA
<213> Homo sapiens

<400> 1044
gaattcgcgg ccgcgtcgac cgttcgatrg agttgggggtg gaactctggc gtcttctcag 60
gtgggtaaag gaaccagcgc ttacgaccgt agatcacttc tgagtaccgg ggtccatgcc 120
agtgaaggg cacccccag ccagctcctg cgattccaaa gctgtaagct ggagcggttc 180
ccagcaggcc aaatgggggt ggggagtagt gccgaaagag agaggccac tcggtgaagt 240
tggtgtcccc gaagaagtac aggggtgtat tgcccaggga ggtggggtcc tgggggtgca 300
gcagctgtc cacatactcc tggaaaggca agtcacttt ttggtaggag taggtgttgg 360
cgggtgtcag ccggaccact ctgtccccaa acgaagccag caacctgtcg cgggagcaca 420
gggcccggaa cctcgag 437

<210> 1045
<211> 420
<212> DNA
<213> Homo sapiens

<400> 1045
gaattcgcgg ccgcgtcgac gcggggatcc ttggcgccat tgtgtgccgt gggcgtctcg 60
tacaccggt agcccaggcg cagtcggcag taggggtcca tgcgggtcat gccgtaattc 120
ttggccaact ttgctgtac caccgtgatg ttcatcggc ccacgggtgc cactgcgcct 180
ccgtactgca gctgtggggc cgccctggggc tccagctgga cctgccgtg ctgctgtgtg 240
ggcgtgatgc ggagggaagt ctgcgggagc tcaccgatgt acaccggccc gcgtgagtgt 300
ctgacgggtg tcgcatggt gctgcggcgg ccccctgggc tcgcccagcc gacagtgacg 360

cgccggggcga cctcctgcgc ccccgccgga gcctgcgacg gagacagttg tcacctcgag 420

<210> 1046

<211> 424

<212> DNA

<213> Homo sapiens

<400> 1046

gaattcgcg cgcgctcgac tgctgctcta agtggatttt taaggatgct gactgcgtgc 60
 cggcatagtc acagtgcgga cacttgtagg gtttctcacc tgaggaggat ggcgaggagg 120
 ggtgcgggct gtcctcctgg gcactcccg tctgggagag gccgcctccg acccgctct 180
 cctcggtgac gtttagaggag cccggcgtgg tggagcggct caccgactgg gactcctggt 240
 cactgcccga gccacgccg tcatccaggc ccacgtgcag cccatcctcc tcgcccttgc 300
 ggtcccgctt gtggacacgg gagtgcacga ccacctggtg gtaagtgcgg aacacccggc 360
 cgcagtcggg gcactcgggt ggcttctcct tcatgttccc aggaccctgc aggttatact 420
 cgag 424

<210> 1047

<211> 477

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (251)

<400> 1047

gaattcgcg cgcgctcgac gggggaaca agcctcccg gtcttcagat agccccacga 60
 ggagccagg atggctgggg caggatggag cagcagagat gaaggagtg ggtgggttc 120
 ctgctcacag gtgaggtgag ctatgctggg ctgggtgatg aaccagatgg gaggaggtg 180
 tgagacaggg ggagagccag gtgccaggga tagctgctcc ctgttctggc accagcaatg 240
 agaaaataaa nacaccacag agtgtggcag caatcgtgg gggagggaca cacttggtg 300
 tgcgggcagg tggggcagtg ggggttcaag tgttcaggtt ggacacacac cacttttgag 360
 atgactacga aagaccacag ggtgggcgtt aaataggggg ctggatacat aggtctggag 420
 ctcagcagga cgcgccagga aggaaatggg agatgataga atgggaattt tctcgag 477

<210> 1048

<211> 192

<212> DNA

<213> Homo sapiens

<400> 1048

gaattcgcg cgcgctcgac catgaaccca atccggagaa ggttccagcg ggtcccccac 60
 cctcccctcc tctcctact tctcctcttg acagcgagga caggaggggg acaaggggac 120
 acctgggcag acccgccggc tctcccacca cccaccccg cccctcacat catactccaa 180
 ccaaactcg ag 192

<210> 1049

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1049

gaattcgcg cgcgctcgac gttttctctt togatatata tgtctctggt tttctctggt 60
 tctacctct tctctccca ctgtttcttt ctgttttat ctttctctct ctttctctct 120
 ctctcgtgca tctccagtgc catgggggag cctgtgctgg gggcgccagg agagccacct 180
 ggagccacgc ctgtgtcccc ggctttgggg agggtcgggt ggttggtgag tgcacgggtg 240
 gcgtgctcc acgcgccccg ggcgacgca ctccccgggt ctccgatttg gctggcagta 300
 ccctgccccg ccccgccggt cgcgccccc gccaccagcg atcgttggg agagggttac 360
 ctcgag 366

<210> 1050
 <211> 535
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (104)

<400> 1050
 gaattcgcgg cgcgctcgac atccccgaac cccgctttcc ggccccgggc gaccgcgggc 60
 aactgtgtgt gctgccgcat tgctcccccc gggtgttagc tgancgcgga gcccggtggg 120
 gccggtgagt ttgagttcct gagatctagt tggtagaga catgatgttc taccggttgc 180
 tgtcgattgt tggagacaaa agagccagcc caggatggca gaactgggcc tctgcaagaa 240
 acagcgcatc agctgccgag gcgcgttcca tggccctgcc caccagga cagggtgtcg 300
 tctgtggagg tggaaacacg ggcacttctg tggcccatca ccaatccaaa atggggtgga 360
 aggatattgt ctttttgag cagggcaggc tggctgtctg ctctaccagg ttctgtgtgt 420
 gcatcctgag cactgccagg cacttgacca ttgagcagaa gatggcagac tactcaaaca 480
 aactctacca tcagttagag caagaaacag ggatccgaac agggtaacac tcgag 535

<210> 1051
 <211> 303
 <212> DNA
 <213> Homo sapiens

<400> 1051
 gaattcgcgg cgcgctcgac cacagacact gtggtgaact tctttatccg cgtggcctgt 60
 cagggttaatg acaacaccaa cacagcgggg tccccgggg aggtgtcttc tcgccggtgt 120
 gtgaaccttc tgaagactgc gttgcggcca gacatgtggc ccaagtccga actcaagctg 180
 cagtgttctg acaagctgct gatgactgtg gagcagccaa accaagtga ctatgggaat 240
 atctgcacgg gcctagaagt gctgagcttc ctgctaactg tcttcagtc cccaggcctc 300
 gag 303

<210> 1052
 <211> 533
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (286)

<400> 1052
 gaattcgcgg cgcgctcgac tgatgaagaa gcacaaggct gccgtggctc aggttccccg 60
 ggacctggct cagataaatg atctccaagc tcagctagaa gaagccaaca aagagaagca 120
 ggagctgcag gagaagctac aagccctcca gagccagggt gagttccttg agcagtcct 180
 ggtggacaag tccctggtga gcaggcagga agctaagata cgggagcttg agacacgcct 240
 ggagtttgaa aggacgcaa gtgaaacggc tggagagcct ggctanccgt ctcaaggaaa 300
 acatggagaa gctgactgag gagcgggac agcgattgc agccgagaa cgggagaagg 360
 aacagaacaa gcggctacag aggcagctcc gggacaccaa ggaggagatg ggcgagcttg 420
 ccagggaagga ggccgaggcg agccgcaaga agcacgaact ggagatggat ctagaagacc 480
 tggagggtgc taaccagagc ctgcaggctg acctaaagt ggcatcctc gag 533

<210> 1053
 <211> 531
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure

<222> (511)

<400> 1053

gaattcgagg cgcggtcgac cgcggccgag tcgactcccc aaggaaaatc ttttcagctt 60
 ccagacagca accacaacta tgcaagccat ctgggtgttc aggggtacg cggagaggaa 120
 gcgcccgaag cgggagaatg attccgctgc tgtaatccag aggaacttc gcaaacacct 180
 gcgcatgggc ggagccgga ggggtgaagg ccagacgttc gctgagcggc gcgagcggag 240
 cttcagccgg tcctggagcg accccacccc catgaaagcc gacacttccc acgactcccc 300
 agacagcagt gacctgcaga gctccactg cacgctggac gaggccttcg aggacctgga 360
 ctgggacact gagaagggcc tggaggctgt ggcctgcgac accgaaggct tcgtgccacc 420
 aaaggctcatg ctcatcttct ccaagggtgc caaggctgag tacatcccca ctatcatccg 480
 ccgggatgac cctccatca tccccatcct nctacgacca tgaagctcga g 531

<210> 1054

<211> 454

<212> DNA

<213> Homo sapiens

<400> 1054

gaattcgagg cgcggtcgac ggcgcttgcc tgtaatccca gctcctcagg gggctgagac 60
 aggagaatcg cttgaacctg ggaggtggag gctgcagtga gctgagatcg cggcactgca 120
 cccagccttg ggctacagag tgagacttgg tctcaaaaaa aaaaacaaaa acaataaac 180
 aaacaaaaaa caacaacaaa aaacaccttg ggtactattc catcaaatga aggtactgtg 240
 agttatctaa tcagttccct gttgaggggc attttgattg tttcatgtcc ttactctta 300
 ggaacagtga tgcagtgaat atcctggtgg atatttaata gacgttctct gagttgacct 360
 tgcttgatg gagatgcag gataatagac gctctgtgtt tctgctgccc attatactcc 420
 aaacacttgc agcctgtcg tcagtgcgct cgag 454

<210> 1055

<211> 435

<212> DNA

<213> Homo sapiens

<400> 1055

gaattcgagg cgcggtcgac cgcggccgag cgcggccgag tcccagggg tcccagcctg 60
 gcgggtgaaa gggcactggc ggttccccgt gagccgatgt ctccatgcgc ggctcctggg 120
 ggtectccct tttgcgagg cggaggaaac ggcttggggt tcaggaagca gcccgaagcc 180
 cgccttgagg ggtgacatca ccagggtta ccttccaca acacatttaa caacagacaa 240
 aacgtgaacg aggagaaact ggagtgcgag tttgaaccag ccacagtctc tacgtgtcat 300
 ccaaggagcc cggcacagac cccgtgtcac cccatgtca cccgcagacc ccgctgcacc 360
 catagatacg cacaccctg gtcaccccca tgtcacccgc gtgtcaccca cagatacag 420
 gcccccgtac tcgag 435

<210> 1056

<211> 540

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (20)

<220>

<221> unsure

<222> (134) .. (135)

<400> 1056

gaattcgagg cgcggtcgan tgggcgtggt ggcatgcgtc tgtaatctcg gctactcggg 60
 aggctgagac aggagaattg cttgtaccgg ggaggcagag gttgcagtga gtgagatcaa 120
 gctgctgcac tccnncttg gcgagagagc gagactttgc ctcaaaaaac aacaaacaa 180

acaaacacta tggtttctgt cctggtaatt ctctctctca aatcacttgc tctggaggaa 240
 tcaagctatc atgttgagaa cagcctaact cagaggcctt catagtggag aactgaaacc 300
 tcttaccat aaccatgtga tgattttagt gcaaatcctt caattcaaat caagctttca 360
 gatgactact atcttagcca gtaccttacc tgcaaacctc agagggaccc taagccagaa 420
 tcaaacact atgctctga ttcttgacc tcggaactgt gaaataacat ttgttgtttt 480
 aaatcgctaa gtttaagggt ttgttacgca ctgatagata atacaggacc actactcgag 540

<210> 1057

<211> 703

<212> DNA

<213> Homo sapiens

<400> 1057

gaattcgagg ccgcgtcgac agggaacata tctttttttc agagcctctg tgtgctgggt 60
 tactgtatc ttcccttgac agtagcaatg ctgatttgcc ggctggctact ttggctgat 120
 ccaggacctg taaacttcat ggctcggtt tttgtgtga ttgtgatgtt tgctgtgtt 180
 atagtgcct ccacagcttt ccttgctgat agccagctc caaacgcag agccctagt 240
 gtttactctg ttttctgtt ttactttgtc atcagttgga tgattctcac ctttactcct 300
 cagtaaatca ggaatgggaa attaaaaacc agtgaattga aagcacatct gaaagatgca 360
 attcaccatg gagctttgtc tctggccctt atttgtctaa ttttgagggt atttgataac 420
 tgagtgggtg aggagattaa aaggagacca tatagcactg tcaccctta tttgaggaa 480
 tgatgtttga aaggctgttc ttttctctc taatgtcatt tcttataaaa tacatgtgca 540
 tactacacac agtatataat gcctccttaa ggcatgatgg agtcacogtg gtccatttgg 600
 gtgacaacca gtgacttggg aagcacatag atacatctta caagtgaat agagtgtgata 660
 actattttca gttttgagaa taccagttca ggcagagctc gag 703

<210> 1058

<211> 263

<212> DNA

<213> Homo sapiens

<400> 1058

gaattcgagg ccgcgtcgac ccctgtctca aaacaaaaaa ccttccttta atcttacatc 60
 agatgtgtgg gtttttaaaa ttatttatgt gttttattta ttttatttta ttgagacgga 120
 gtcttgcctc gttgcctggg ctggagggca gtggcatgat ctgcgtcac tgcaacctct 180
 gcctcccatg ttgcagcggg tctctgcct cagcctccca agtagctggg attacagggt 240
 cccgccacca caccgaactc gag 263

<210> 1059

<211> 316

<212> DNA

<213> Homo sapiens

<400> 1059

gaattcgagg ccgcgtcgac ccagcatctc tcaacagtct cagctcgctc attcttaaga 60
 tgtcagctta aatgttatct cttcagaggc ccccatgttc tctcttgcaa tggcctgttc 120
 tattccatta ggggactttg ccataatagg catatttgtg taaaagttcc atgagagcag 180
 aggttttgtt tcttttatcc ctccatacac agcaactgga acaatacaat gcatagagta 240
 aacatgcaac agataacctg aaggaaatgt gtttcatgcc ttcattcctt cctatacatt 300
 attgctcccc ctcgag 316

<210> 1060

<211> 393

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (27) .. (29)

<400> 1060

gaattcgcg cgcgctcgac ttgaatnma gacatgcctg ctcaccccc actgcactaa 60
 cctaaataat ctctgattat tttctttttc tcttgctact accaaattct gttcttgagt 120
 gaggaagcag cttggttaaa aaacaaaagc cctgatatgt atatatattt ttttctctga 180
 agaataccat caggatgaag gctatgatta atacacataa ttgtacaaa tggcagctaa 240
 ctgcagaaaa ccacctccca gctgttgag gaaggaaatt gctgacagcc actccccatt 300
 ggggtgctac caaaagagag gagctcacag gagcaggaga gaatacacat ctccatccca 360
 cgtgacccat agagatgacc cattaggctc gag 393

<210> 1061

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1061

gaattcgcg cgcgctcgac gctaaacgga ctgtttttat tgtagtaaaa gagctttgta 60
 aattaaccaa ttaattttta agccctaaat aagcttttct gtgcatttga gatctagaag 120
 atacagcttt attaatctga tctaaatttc tgaagggggc ttgtatttct gtaatcagtg 180
 atatcagtag tcaactgttg gcaaaaggga ttttttaaaa gaaatgcaca tagcaggctt 240
 tctcgag 247

<210> 1062

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1062

gaattcgcg cgcgctcgac aaaatagccc tggaagtgtg gccttcagct cctctaccca 60
 cagctgacta aaaacattgg caagtttctc acctaggctg ttgtcacccg aatataaatg 120
 agaccattt ctggccagaa aacttcagct atcacagtct acattgtgat gattgtcttg 180
 gctgttttct caagcaaaag aaggtgcatg gtctcatgta tttccccca acacctcgag 240

<210> 1063

<211> 429

<212> DNA

<213> Homo sapiens

<400> 1063

gaattcgcg cgcgctcgac gtgggagcgg aggtagggga gctcagaggc aggaagcatt 60
 ttcggcaaac cactgcagag taggcatgtc atccctccca ccagcactgg gggagcccaa 120
 tgcccaccac ggacaagggg tggcagacac ttgaactagc agccaaggaa gtcctacca 180
 tctcatgatg aggagcataa aggtggtgtg atgtgcaact gcctagaggc agataaataa 240
 atgtgaaggc aaagtgggcc aaggaagcaa gaggtggaaa agaccaacaa aattcaacta 300
 acttccctcc ccagtccaca actatgctaa ccccttctgc cactgggcca actgcagaga 360
 taaaaatgcc agtgactcac tccagggttg gctcttgagg ctgccacaag cctgatactc 420
 agcctcgag 429

<210> 1064

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1064

gaattcgcg cgcgctcgac gaatgggatg cataccatag acgaacgagg cgagactat 60
 tgcgggaatc ttactgttca ggagctgttc ctagaactaa ctcccttact gtcattgatg 120
 tgcattccac tctgtgcttt tctgtacaac cattcaagtt ttaatttccc aggtgaacca 180
 tctttatctg ccattaccac aagcctcgag 210

<210> 1065

<211> 262

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (138)

<400> 1065

gaagaaaatg aagcacctgt ggttctctct cctgctggtg gcggctccct tacgggtcct 60
gtcccagggtg cagctgtatg agtcggggccc agggctgatg aagccctccg agaccctgtc 120
cctcacctgc ggtgtctntg gtggctcccc cagtgggtgct gccgacttct ggggctgggt 180
ccgccaggcc cccgggaagg ggcttgagtg gattggcaat atgcaccatc gtggaaatgc 240
ccattacaat ccgtccctcg ag 262

<210> 1066

<211> 262

<212> DNA

<213> Homo sapiens

<400> 1066

gaattcgagg ccgcgtcgac ggaccggcgg cgtgttgttg gcgttctaga ccttgaacga 60
cggcgggtta ctggtggcgt tctggatctg gatcgcttc tgctactgg ggatgctctt 120
gaccgggagc ttcgtcgagt cactgaagtc ctggacctg accgtctccg gctgactggt 180
gaagttcgag atctggacct acgtcggctt atcagggggg ttctggacct ggatcgccgg 240
tgagtggctg gagaggctcg ag 262

<210> 1067

<211> 123

<212> DNA

<213> Homo sapiens

<400> 1067

gaattcgagg ccgcgtcgac cgtcgattga attctagacc tgcttcgagt tctcaattct 60
gttaacaatt taaaatttca ttaattgtgt ttaatatcaa tgaattctaa aaggctcttc 120
gag 123

<210> 1068

<211> 265

<212> DNA

<213> Homo sapiens

<400> 1068

gaattcgagg ccgcgtcgac ggggttctgt ttccatacaa cattgtttat ttccgattcc 60
tcagaagatc ctttattatg aataacctca gtgtaatgtt aatttccgt ccccatgtca 120
aaattgtcac cctaagcctt ttttttttt ttttttttt ggagacgggc tcaactctgc 180
agccacgtg gagtgcagt acatgatctt gactcatggc aggcttgacc tcctgggctc 240
aaggaccacc tccaagcac tcgag 265

<210> 1069

<211> 153

<212> DNA

<213> Homo sapiens

<400> 1069

gaattcgagg ccgcgtcgac gattgtagat attgggctgt taattgtcag ttcagtgttt 60
taattctgacg caggcttatg cggaggagaa tgttttcacg ttacttatac taacattagt 120
tcttctatag ggtgatagat tggctcactc gag 153

<210> 1070

<211> 563

<212> DNA

<213> Homo sapiens

<400> 1070

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gaattcgagg cgcgctcgac agggcacttc ctctaagtaa acacaaatat ttctgtagtg 60
aactgtatgc atattcccac tgagtaaagg ttataagaag cctcagggtca ggtcttacca 120
ccaaacttga aaacacttgg aatgcagctg ggcaggggact tgagcagggtt ttgtcttgat 180
aagcaggtaa gaatggcaga acactggcctt attgtcaacc aatgtttttt tatataacctg 240
aagtattcat tgaattctag acctgcctcg agtatgggga gatgggaaaa ggcagggttag 300
gggcatgcag gctcagggaa cagggtcttg gtgggtggat ggatagccat ggaggcagaa 360
agaggctctt gcaggaaagaa cctgggagag cggagaggag gtggtgaggc aggggagcac 420
tatggaatgg ccctgagccc aggaggggct caggatgacc aggcataaagc acagctggtc 480
caggatggag gggaggcctg cacagcatga gcaggaggct agaggagaca gaccatgagg 540
ccctgggaga cccctcactc gag 563
```

<210> 1071

<211> 511

<212> DNA

<213> Homo sapiens

<400> 1071

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gaattcgagg cgcgctcgac gtcgatgcc tctagtctca gtgaatttaa cctgtgattt 60
tatgtctacg tatattgttc ctttactgaa cccaccacat gcgggccata aaatgagtga 120
aatcacagtg caccctgttc tcttattttt gaagtgttcc acgatttcca gcatgtccat 180
cagatggggg gattgctaac ttctctctta ctcatgtact tacattctgt agttctcatt 240
gcatcacttt ggatgtttac ttgaaaagc agaaactgtc tctttaaact tggccctcaa 300
tgtcatttgc gtatctctga gaacaatagc tatgtcccac cccagtttgt atttccgttg 360
gttgttgcca cttttttctc attcccccat ctcatcact tgtctgtttt ctggcactca 420
ctataatcag ccttgcacta gagctgtttg tggacttggc ttcacccct cctcctcagc 480
cctccccac ccattaaatt gcgagctcga g 511
```

<210> 1072

<211> 339

<212> DNA

<213> Homo sapiens

<400> 1072

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gaattcgagg cgcgctcgac agggcatcga gagtagtggg aacgtggtat gagatcagg 60
tggaagggtg aatgaagatt gaaaaaaaaa agacggcaaa tagagtagat gctgctagac 120
caattaggaa acttctagtt caggcaagag ataatgatag cataggctga ggacagggtg 180
tggtgatggt gatgcaaaga gcgttaggat tctgagatat ttggcaggta ctgttgatag 240
gtggagtgga ggtagaagag aaagatcatg agtttgactt tagatatggt aagtttgatc 300
taccttgaag acatccaaga gaagacaccg ggactcgag 339
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<210> 1073

<211> 226

<212> DNA

<213> Homo sapiens

<400> 1073

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gaattcgagg cgcgctcgac ttgatattc tattccattt ttttcagtct tctttgcctt 60
tgctcttcaa ttttgaaagt ttctattgac acatcctcaa gctcagagac tctgcttagc 120
catgtccggc ctactaatga gcccatcaaa agcattcttc acttctgtca cagtattttg 180
ctctgtatca tttctttttt attctttctt agaactccg ctcgag 226
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<210> 1074

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1074

gaattcgcg cgcgctcgac gcagatgtcc atttcaacag gcttaagtgc aaccatgaat 60
 ggaaatcatcg aatctttgat tcttcctgga ataataagta ttcacccctgt tgtaagaaac 120
 ctggctgttt tatgcttggg atgctgtgga ctacagaatc aggattttgc aaggaaacac 180
 ctcgag 186

<210> 1075

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1075

gaattcgcg cgcgctcgac ggtagggatc caccacatat atttataggc ttccagagtg 60
 gcttagccat ttgaaacca gtcattttct atttggcatg cttctagctt taacaattaa 120
 ccttcttaca ttaatacatg ctttgaatcc agagagtatc tgcctgtttg gatctgaaat 180
 ggactggcag atctgcggag ctacagcaga gaaaaaatac tggggagaat taaaagttct 240
 ccctata 247

<210> 1076

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1076

gaattcgcg cgcgctcgac atacctccat ttgcaacaa aatttcattc ccacttctctg 60
 agtccatcca gagtgtctgt ccaaccttgc tctgtctctt gctaaatatt accgctctag 120
 tggtagattc ctattggcat actaactgct gctatttctt ccattttgaa aacaggaata 180
 acaaatatac ttatcatgat tctacttccc caaataactcg ag 222

<210> 1077

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1077

gaattcgcg cgcgctcgac ggtaaagggtg aagtcagctt tttctagctt acagtctctgt 60
 catccagttc ctgagctaaa atagggccta cagttctgat ttggctttg tcatttgagt 120
 ctcctgctct tttctgtatg ggtcaagcta gaaggggaca actcgag 167

<210> 1078

<211> 170

<212> DNA

<213> Homo sapiens

<400> 1078

gaattcgcg cgcgctcgac atatatttgt atttttgtat gctttggaaa aagacaggaa 60
 ataaacacca aaatgttgc agtaggtatc tctgtgttaa gattagtgtt attattttct 120
 tttctgtact tttctgtatt tcccaactgt tatataatga gcgactcgag 170

<210> 1079

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1079

gaattcgcg cgcgctcgac ctaatgcac acagcattct ttgaaatgga accagacaca 60
 gcctgcctct caatctcag ctgggggctc ctacagcct cttgtattta ctacagttg 120
 acacatcaca cagatcctgt ttggcattcc taccttacgg acgtctcagg ggtgacagga 180
 ccagggcaga gccccgttac aaacagacaa ggctgcaatc tcgag 225

<210> 1080
<211> 214
<212> DNA
<213> Homo sapiens

<400> 1080
gaattcgcgg cgcgctcgac cgcattgtcca gtgggctggg aagcaagcac ttgaagagaa 60
ggaaggggag aaagggtccc ccttgcctgc tgcctctgag gaatggaaat ccttttagacc 120
cggccttttt tggaccaata taaatttaatt ttaaattgac agccttccat ttttcgagaa 180
agtacaaaca gaactgcttt agcaccact cgag 214

<210> 1081
<211> 102
<212> DNA
<213> Homo sapiens

<400> 1081
gaattcgcgg cgcgctcgac gtgggtgtctc tacaatactg tgctttttct ctccattaac 60
ataatgcattc tgagagtact tctccttcag catgttctcg ag 102

<210> 1082
<211> 273
<212> DNA
<213> Homo sapiens

<400> 1082
gaattcgcgg cgcgctcgac agccaatata tttcatttta aagcaagcaa taaaaactta 60
tttcgctggt taatatTTTT attgacttta aaaagacttt gaacttagtg aaagagaatc 120
agtcacctag aaatgtactg ctctcatcta gctgggaagg tcattgtaat tttcttctat 180
atagatttgt ttgctctaga taagcggctc aatttgaata gatttttagt ggtagaaaga 240
gatgacggaa gcacattaat ggaacaactc gag 273

<210> 1083
<211> 264
<212> DNA
<213> Homo sapiens

<400> 1083
gaaattcgcg gccgctcgca ccctaaaccg tcgattgaat tctagacctg cctgctttcc 60
tgectgcccc acctgcctca tattgtgtgg gccttttttt gtttgtttca ttcattgttt 120
tttttttttt aattatttta aatgagattt ttgttttttt taaatgcaat atctctgtat 180
acagactggc tgggccccac cccctgcgtg tggccctccc acagtatttt gtgcaatgaa 240
gcctgctcc cagccactct cgag 264

<210> 1084
<211> 383
<212> DNA
<213> Homo sapiens

<400> 1084
gaattcgcgg cgcgctcgac caacagccag tttggcctcg tggacatccc tgtggagttc 60
aagctggtca ttgccagggt cctgctcctg gacttctgcc tggcgtcctt ggccgaccgc 120
gtcctgcagt tcttctctgg gaccctgaag ctgaaagtgc ctctctgaga tggcagtgct 180
ggtaccactg gccaccctg gctgcgctg ggccgggaacc ccaacagggc cccgggaggg 240
aaccctgccc ccaaccccc acagcaaggc tgtacagtct cgcccttggg agactgagct 300
gggaccccca cagccatccg ctggcttggc cagcagaacc agccccaagc cagcaccttt 360
ggtaataaaa gcagcaactc gag 383

<210> 1085
<211> 282

<212> DNA

<213> Homo sapiens

<400> 1085

gaattcgcg cgcgctcgac ctttgagatt gtcacttctg tacataaacc acctttgtga 60
ggctctttct ataaatacat attgtttaaa aaaaagcaag aaaaaagga aaacaaagga 120
aaatatcccc aaagttgttt tctagatttg tggctttaag aaaaacaaaa caaaacaaac 180
acattgtttt tctcagaacc aggattctct gagaggtcag agcatctcgc tgtttttttg 240
ttgttgtttt aaaaattat gatttggcta cttgcactcg ag 282

<210> 1086

<211> 184

<212> DNA

<213> Homo sapiens

<400> 1086

gaattcgcg cgcgctcgac cctgtttatt agaaagtga gagaggatga ttatgttcct 60
tcatectctc agtgtcttag tactccctac acctgcgtta tgttatgacc tacctttgcg 120
atctgccagt ttgggggtca gcttaagtga gaattcatat tctgcttcac tggaaatcact 180
cgag 184

<210> 1087

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1087

gaattcgcg cgcgctcgac gtgagtcacc atgcccggct attgctttct tatattgaca 60
gtgggtttgt actctctcta tgcctacgg cactgccatc agatgggtgg aaattatgac 120
aggttgttgc tgggtatcct gtagctaagt aatacctagc gaggaatatca ggattagaaa 180
ataactcgag 190

<210> 1088

<211> 110

<212> DNA

<213> Homo sapiens

<400> 1088

gaattcgcg cgcgctcgac caaataataa aattgttcaa caggaagctt tcttgccag 60
gtttctccac caaatccata atgctgatgt cctttgcccata tatgctcgag 110

<210> 1089

<211> 226

<212> DNA

<213> Homo sapiens

<400> 1089

gaattcgcg cgcgctcgac ctgtaataag cattataatt cctgttctta aaataataag 60
ttcatttaag gaaaaggggg tgaaaggaaa aatctgcaga atttaggtct gagataatac 120
catttcaaag cactgtgata caaattactt atatatgtta tatactgtgt gtgtgttaac 180
tacttttatt tgggggcttg ttttgcatac atgtgaaggt ctcgag 226

<210> 1090

<211> 267

<212> DNA

<213> Homo sapiens

<400> 1090

gaattcgcg cgcgctcgac ggcaggataa aacaacatag aaaaataaaa acaatttttg 60
ctttgaaaaa tacagtgcag gtgaccattt actgcttatt ctgtaatcct tactgtctat 120
aattaacttc agtaacactg aaacttgatg aaaagtttta aaaaattatt tactgtaggg 180

acaaagttat atggaatggt gttattttct atactatctg aatgcactgc cagtgaagac 240
tgtaaagaca gaacacaaac actcgag 267

<210> 1091
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1091
gaattcgagg ccgcgtcgac gtcattttgc tctttcccct ctggtgaaaa atcattcctt 60
ttttatcccg tggcatatat atgtttgcct ttataaatta ggtacaattt ttgtatgttt 120
aggcagtcac ttttactttg cgtttttcta ttctgtttta aaagcattta tggccaaaaa 180
ctcgag 186

<210> 1092
<211> 282
<212> DNA
<213> Homo sapiens

<400> 1092
gaattcgagg ccgcgtcgac gtggtctact cgtggataag ttcaaactaa atggatggga 60
aaaaatataa catcctaaca ttcataaagg aaagctgaag tggttacatt agaacaagca 120
atgttgctaa ggataagatg agacatttca taatgataaa tgggtgaatt catcaagaaa 180
acagttctaa acaggtgtgt acctaattac agtttcaaaa tacatgaagt aaaatctgct 240
ctcattgaaa ggaaaaatat ataaaatcaa aatctactcg ag 282

<210> 1093
<211> 208
<212> DNA
<213> Homo sapiens

<400> 1093
gaattcgagg ccgcgtcgac gccttctatt gtgctttgtt ttgtctgact tttctgcacc 60
ctgtttcctt tggatattca gttctctcaa cctcaagatt gagacgggtg tgggtatgct 120
tctccacttc catatgacct tcatgtgtt ctggaatata acatgctacg aggtcatcct 180
tcacactact tgtaagccaa cactcgag 208

<210> 1094
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1094
gaattcgagg ccgcgtcgac ccttaatgcc atccttcatt gtctttctgg cttctcttct 60
tctggcacag taccattttg ggtctgtgcc ccagtgtgga gcaaaacatt gcctgtccca 120
ttctgatata cttcagaatt tgagagcaga agttaatgtg gaacaaaagt tttcaccatc 180
tctcgag 187

<210> 1095
<211> 221
<212> DNA
<213> Homo sapiens

<400> 1095
gaattcgagg ccgcgtcgac ggcactgttt tttttttaa cagttaagta ctgatgtcaa 60
cagacaaata tttctgatca gatagtcccc tgtcaacagt agcaaatgtg gtttcataaa 120
gtgggaagaa aacagcattt taaagtaact ttttgggaga ctgatttgag taataataaa 180
actctggtct cccttaagaa aaaaaaaccc ttccgctcga g 221

<210> 1096

<211> 241
<212> DNA
<213> Homo sapiens

<400> 1096
gaattcgcg cgcgctcgac tataaataga ttttttgtt gaatgttaat tcagttatat 60
attttcttct tgatattgtc ttttagttgat gcaggccagt taaaatgagt gacttcaagt 120
tttagagaaa tacatacaa tgcagttta taattatttt gttttttata caatttacta 180
ttttagaatc tcattcatat tccattgtat ttccatgaat gatacttttg gacaactcga 240
g 241

<210> 1097
<211> 192
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (29)

<400> 1097
gaattcgcg cgcgctcgac gagacaccna aatccagtc gtatctaate tggcttttct 60
taacttccct caggagcaga cattcatata ggtgatactg tatttcagtc ctttcttttg 120
acccagagaag ccctagactg agaagataaa atggtcagggt tgttggggaa aaaaaaagt 180
ctggctctcg ag 192

<210> 1098
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1098
gaattcgcg cgcgctcgac cgtcgattga attctagacc tgcctcgaga tgcctcttct 60
taacgtgctg gcctctgtgc tcatggcctg catgacgctg ctgccacact ggttgggagg 120
cgctcccca ggcctctccg gcccgacat ctctcgccc tgcggtctct ataaccctcc 180
ccactcgag 190

<210> 1099
<211> 152
<212> DNA
<213> Homo sapiens

<400> 1099
gaattcgcg cgcgctcgac gtgtgtttt tttgtcagac tttctgaaa gtttggagtt 60
aatgggagat gagaaagcat attgaaagaa tacttttctt ttttttaat tattattatt 120
atactttaag ttttagggtg cgagcactcg ag 152

<210> 1100
<211> 295
<212> DNA
<213> Homo sapiens

<400> 1100
gaattcgcg cgcgctcgac ccccgatcca ggcacctggc cctcagcggg cccacctttg 60
gtatcattgt gaagcatttc cccaagctgc tgcccaaggt cctgggtccag ggcactgtct 120
ttgccgcacat ggcctctgag cagaagacag agctgggtgt cgagctacag aagcttcagt 180
actgcgtggg catgtgcgga gacggcgcca atgactgtgg ggcctgaag gcggtgatg 240
tcggcatctc gctgtcccag gcagaagcct cagtgggtct acccttcacc tcgag 295

<210> 1101

<211> 259
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (32)

<220>
 <221> unsure
 <222> (48)

<220>
 <221> unsure
 <222> (66)

<220>
 <221> unsure
 <222> (205)

<220>
 <221> unsure
 <222> (212)

<400> 1101
 gaattcgcg cgcgctcgac tattggagtg cnaagtgctg tgattgtngg tgggaattgat 60
 tcaatntctc aatctttggc ccttgcaaaa aaaccacata taataatagc aactcctggt 120
 cgactgattg accacttggg aaatacgaaa ggtttcaact tgagagctct caaatacttg 180
 gtcattgatg aagccgaccg aatantgaat anggattttg agacagaggt tgacaagatc 240
 ctcaaagtga ttcctcgag 259

<210> 1102
 <211> 173
 <212> DNA
 <213> Homo sapiens

<400> 1102
 gaattcgcg cgcgctcgac gtttaaggagt aggcctcctg agtaaaggag gtgtgatttt 60
 ttttttcttt gaggtgggag tatagttgga actaaataaa ctacgtgtga atttaccata 120
 tcaactaaaa ttttgatcaa atgggttttt taaattgtgt ggtacttctc gag 173

<210> 1103
 <211> 277
 <212> DNA
 <213> Homo sapiens

<400> 1103
 gaattcgcg cgcgctcgac ggggtgggta tgcgcccaacc ctatttcagg cagcgctcaa 60
 agtaggtgga gccgatgtag ccaccccgca tggagcgctg cacgttctgc tcaaacagcc 120
 gccggttgtt ctgcaggacc tctgcggcct ccttgttcag tgggtcctcg gggttgggct 180
 ccaagaagag atactgcagg ccataaatta tggagtttat cgtaaggact ggcttcaggt 240
 cctctctgag gatgttgagg cagacgttgc cctcgag 277

<210> 1104
 <211> 208
 <212> DNA
 <213> Homo sapiens

<400> 1104
 gaattcgcg cgcgctcgac agaatacttc gcctaaaata ctgttaagtg ggtaattga 60

tacaagtgtc tgtggtggaa aatttatgca ggttttcacg aatccttttt tttttttttt 120
 tttttttgag acggagtctc gctctgttgc cacgctggaa tgcagtaacg tgatcttggc 180
 tcactgcgac ctccacctct ccctcgag 208

<210> 1105

<211> 180

<212> DNA

<213> Homo sapiens

<400> 1105

gaattcgagg ccgcgtcgac gttctctctt ggcattggtg ctcaaattga tgctaactgg 60
 aacttcttgg attttgccta ccattttaca gtatttgtct tctattttgg agccttttta 120
 ttggaagcag cagccacatc cctgcatgat ttgcattgca atacaaccat aacgctcgag 180

<210> 1106

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1106

gaattcgagg ccgcgtcgac gtcgacggcg ccgcgaattc gggcgcgctc gaccagaggaa 60
 aggcctgtgg ggtctctctc ccgcgctctc acacgctctc gcatccacc gagcgccag 120
 cttctgcctg cactgtgtgt aaactggcct ggaggttctg acaagaatta gagcgcggc 180
 cgttgcctcg gggatgacct ggaagcgaaa gagaccggca cgaattctag agtttcgggg 240
 tttccgaggg ttgagattgt acgggaaaca atgcattaac caaacctaaa aatcaaaca 300
 acactcgag 309

<210> 1107

<211> 185

<212> DNA

<213> Homo sapiens

<400> 1107

gaattcgagg ccgcgtcgac cagcattagc agaccgaaac aggagggaag gaagtggtaa 60
 cccaactcca ttaataaacc ccttggcttg aagagctctt tatgttggaa tggtaacaaa 120
 accagcaaat gaacaatccc aggaattctc aatacacaat gaagattttc caggcattac 180
 tcgag 185

<210> 1108

<211> 269

<212> DNA

<213> Homo sapiens

<400> 1108

gaattcgagg ccgcgtcgac atgtattgga tgaacgaata tacctcatcc attggaattg 60
 gagtttttca ttcaggaaatt gaagtctatg gcagagaatt tgcttatggt ggcattcctt 120
 accccttttc tggaaatatt gaaatttccc caggaaatgc ttctgaacta ggagaaacat 180
 ttaaatttaa agaagctgtt gtttaggga gcacggactt cctagaagat gatatagaaa 240
 aaattgtaga agaactggga tcactcgag 269

<210> 1109

<211> 164

<212> DNA

<213> Homo sapiens

<400> 1109

gaattcgagg ccgcgtcgac acctgattac tttttcacct ctacaaccag gagaattttg 60
 aatttaaaaa taaatccaaa cattttctt catattatca atgcttatat attccttaga 120
 ctattgaaat ttggagaaa atgtatttgt gttcacttct cgag 164

<210> 1110
<211> 255
<212> DNA
<213> Homo sapiens

<400> 1110
gaattcgcg cgcgctcgac gattttaaaa tatttcttct ttaaatttct ctttcatgtt 60
atgaattgtt tttctgattt tattgaatta tcttctgtga ttatcttgta tcctattgag 120
ggttttttgt ttgtttgttt gtttgtgaga cagagtgtca ctctgtcacc taggctggag 180
tgcagtggcg tgatcttggc tcacaacaat ctttgccttc caagttcaag tgattctcct 240
gccccaaacc tcgag 255

<210> 1111
<211> 284
<212> DNA
<213> Homo sapiens

<400> 1111
gaattcgcg cgcgctcgac agctctttgg cctcagaatt ttcagtagcc agtatttctg 60
attaactaag ttgaaactct tattagaaac tttcagttgg tgatattgta ttctagaaga 120
tataaatgag aggtttggct tcatctcagt ttagaaattt attcaaagct aaagatgtat 180
atatacatat acttttgtgt gtatatatcac acatatgtgt gtatgcagtt tgtcagggtta 240
tatatagaat ttctattaag gattttttta atggacagct cgag 284

<210> 1112
<211> 303
<212> DNA
<213> Homo sapiens

<400> 1112
gaattcgcg cgcgctcgac tgcaattcta atgcattcta cgtttttgaa aatcgataat 60
ccatggaagg tccatgggtt gatacctcag gtcaaaaatg tgtttactct gttgattgct 120
gtttcacttt acttgatat cagatatata agctatgaac acaagtttgt agtaaaagta 180
tcttctgtct gggcaatggc tcacacctgt aattccaaca ctttgggggg ctcagggtggg 240
aggatttcta gtccccagga gtttgagacc agcctgggca ataaactaga cccactctc 300
gag 303

<210> 1113
<211> 105
<212> DNA
<213> Homo sapiens

<400> 1113
gaattcgcg cgcgctcgac ggggcttgca attacatga gaaccgtgct ggtcactagc 60
gctgtctgtg tctgtctgtc ctgctgggact tctgtctccc tcgag 105

<210> 1114
<211> 216
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (73)

<220>
<221> unsure
<222> (86)

<220>

<221> unsure

<222> (104)..(105)

<400> 1114

gaattcgcgg ccgcgtcgac gagaggagac acaggaagcc cagagagcca gatcgagaca 60
agaaacaccg agnaaaaagc agcacnaggg aaaaaagaga gacnnattcc aaagagaaaa 120
gtaattcatt ctctgacaaa ggggaagaaa gacataaaga aaagcgacac aaagaagggtt 180
ttcattttga tgatgagagg caccgctata ctcgag 216

<210> 1115

<211> 286

<212> DNA

<213> Homo sapiens

<400> 1115

gaattcgcgg ccgcgtcgac gctttctggt gattgggacc ctgatgccaa gtgcccactt 60
tgcaaagaag aaaaagttaa tgaccctgct cccttggtc ctgtccatgc ttgacctggc 120
tcctagagtt ggaggaacaa gccctctcct ggcagaggca ggagagcaag tgctctccta 180
tgatccaata catcaggcgg gagtgtgag tccgtcagga caccactcct cgcagcatca 240
aggtccagtg ggggtgggtc agggcagtga gaaggggtgg ctcgag 286

<210> 1116

<211> 170

<212> DNA

<213> Homo sapiens

<400> 1116

gaattcgcgg ccgcgtcgac gaagaaaata ccaagtgttc attctgtcat tagcaaggaa 60
caccaatgag gtttctttt tttctctatt tagggcatat taaaattatc cttcagagta 120
cttgtattga aaatcaagtt tatgtttctg aaaagaatcg tgggctcgag 170

<210> 1117

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1117

gaattcgcgg ccgcgtcgac atttctcttg gaattgggct gctaacaact tttatgtatg 60
caaacaaaag cattgtaaat caggtttttc taagagaaag gtctctaaag attcagtggtg 120
cttgggttact ggtattctta gcaggatctt ctgttctttt atattacacc tttcattctc 180
agtcactcga g 191

<210> 1118

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1118

gaattcgcgg ccgcgtcgac gttctttcta tggaaaccag ttggaaaaga tcatttggtta 60
accaggggct ctgttcttat agatgcatat cagaatgatc cacagtcaga actttgtggg 120
cttcttggtta atgctggaaa tttttcaaca ggcctggaag acagccggac tcgag 175

<210> 1119

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1119

gaattcgcgg ccgcgtcgac attctatagg attttctata tacgagatta tgccgtctgt 60
gaaaagagat cgttttatctt cttcctttgt gatctggatg acctttatctt cttttcttg 120

cctaattgcc ctgattagaa ttccactac aatgttgagt atttgggta agagcagata 180
ttcttgtctt gttcctgatc tcgag 205

<210> 1120

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1120

gaattcgagg ccgcgtcgac cacagacata gttctaaatg actttcagct atttctagaa 60
attagacaca tcttcctaag cgaagggtta ccatgtttaa ggttccatga aagaatgtgc 120
cctaagtgtg tgcccagccc ctggctgaga agaaacgggc gtgtgggagg cgggtgaaga 180
gcacacaggg aggggacgga gaagctcctg agccagcctc cttcatggct cagtttcatt 240
tcagtgcgtg gcacttccca gaagaaacga ctcgag 276

<210> 1121

<211> 339

<212> DNA

<213> Homo sapiens

<400> 1121

gaattcgagg ccgcgtcgac gggggttccc cctgctgagg agagaccagg tggaccccag 60
ctgcctgtca cccttcatct gggacttgct gtcaaaccct aggatagtct cataaagggg 120
aggctgggccc agcctgtctg tgtctgtctc aggaccaggc agagagttag gctgggggtt 180
ctcacacctt actccaccgg gcacatccca acctgcactg gggcccaccc gagcgcttgt 240
tctggtctca gcccctccct tggcagctgc agccccatg cagaagaggc tcccaggccc 300
aagctctgtg tgacccagag aaataatgat gcactcgag 339

<210> 1122

<211> 168

<212> DNA

<213> Homo sapiens

<400> 1122

gaattcgagg ccgcgtcgac ccataccag cctgtttaat tctttataat tcacttctgt 60
tgtgaaaaca gcattttata ctttaagctta atgattgcaa cagtcaaaat tattttattt 120
ttaaacttca cttatcattt aggaattatt ttcccgaag gactcgag 168

<210> 1123

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1123

gaattcgagg ccgcgtcgac attcatctag catggaaggg agtgaaacag gttctcgga 60
gggttcggat gttgcctgca ctgaaggcat ttgtaatcat gatgaacag gtgatgactc 120
ttgtgttcat cactgtgaag acaaagagga tgatgtgat agttgtgtt aatgttgggc 180
aaattctgaa gcagaactcg ag 202

<210> 1124

<211> 172

<212> DNA

<213> Homo sapiens

<400> 1124

gaattcgagg ccgcgtcgac cattattgta aataaaacct aatatttta actatatata 60
tctttttaat tagattacac caccaccttc actgtcagat ccacttaaag agcttttctg 120
acaacaggaa gttgtaagga tgaaactacg ttgcaacac agcatactcg ag 172

<210> 1125

<211> 164

<212> DNA

<213> Homo sapiens

<400> 1125

gaattcgcgg ccgcgtcgac cgattgaatt ctgacctgc ctaggcacag atgctaattgc 60
aggcactgca ggtaagctgg gcttggatc cttccctggc ttcagaaaga agccaacaag 120
gagcgttttg cagaatgaaa ctttgtttc cacaagcact cgag 164

<210> 1126

<211> 563

<212> DNA

<213> Homo sapiens

<400> 1126

gaattcgcgg ccgcgtcgac atttggatc tgggaattac tgctattgaa ctagccaagg 60
gagagccacc taactccgat atgcattcaa tgagagttct gtttcttatt cccaaaaaca 120
atcctccaac tcttgttggg gactttacta agtcttttaa ggagtttatt gatgcttgcc 180
tgaacaaaga tccatcattt cgctctacag caaaagaact tctgaaacac aaattcattg 240
taaaaaattc aaagaagact tcttatctga ctgaactgat agatcgtttt aagagatgga 300
aggcagaagg acacagtgat gatgaatctg attccgaggg ctctgattcg gaatctacca 360
gcaggggaaa caatactcat cctgaatgga gctttaccac cgtacgaaag aagcctgac 420
caaagaaagt acagaatggg gcagagcaag atcttgtgca aacctgagt tgtttgtcta 480
tgataatcac acctgcattt gctgaactta aacagcagga cgagaataac gctagcagga 540
atcaggcgat tgaagaactc gag 563

<210> 1127

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1127

gaattcgcgg ccgcgtcgac ctcttagctg agcaggcgag agcatcatgg ataccgactt 60
atatgatgag tttgggaatt atattggacc agagcttgat tctgatgaag atgatgatga 120
attgggtaga gagaccaaag atcttgatga gatggatga gatgacgacg acgatgacgt 180
aggagatcat gacgatgacc acctgggaa actcag 217

<210> 1128

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1128

gaattcgcgg ccgcgtcgac gaaaaccgct acattgtcct ggccaaggac ttcgagaaag 60
catacaagac tgcattcaag aaggacgagc aggagcatga gttttacaag tgacccttcc 120
cttccctcca ccacaccact caggggctgg ggcttctctc gcacccccag cactctgttc 180
ccaaaacctc attccctttt ttctttaacc agagctctcg ag 222

<210> 1129

<211> 185

<212> DNA

<213> Homo sapiens

<400> 1129

gaattcgcgg ccgcgtcgac ggctgcagac agacaaacac ctgagctgtt ctgaatacct 60
tcaggttcct ggcctcctg agcaagtga gaaatttta cttcaagga tcagggtttt 120
tctgtttgtt tgttttttaa cacacatata tgtgaacaaa gagtatcgt ttgtactggc 180
tcgag 185

<210> 1130

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1130

gaattcgcg cgcgctcgac cgtgtgagtg tgtgtttgta tacgtctggc aattaaagct 60
ttgtcttctg gaacttagtg aattcttttc tcttttctct ccagaagtat ttgttacaag 120
atttgtaa at aagagctcta cttagtgtt ttaccatgaa cctcgag 167

<210> 1131

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1131

gaattcgcg cgcgctcgac cttttgcttt tcttctctta caattctact ctccttttcc 60
tgtctctttt ccaatctatc ctcatttctt cctctgctt cctctcttat cctatactta 120
tggctgtctc acttctgtct attctcttct cctctctctt tcccacctgc ctgttcatcc 180
tatttctctc tcttgcgct ctatccccac cgtcgag 218

<210> 1132

<211> 354

<212> DNA

<213> Homo sapiens

<400> 1132

gaattcgcg cgcgctcgac cttttgagtg tttgttttc tattttattt ttcgtttttg 60
tgtgtctgca tgggtgtttt cgggcagtg cttctgcat catcaccaca tgtttctctg 120
ctgcccactg tcttgaggtg ggcgctctg gaagccctgc tctctgctt ttgcgggacg 180
agtcccgccc tcttttttcc tgtcccatc ggtagtctgc gtgcacgtgt tttccacagt 240
aaaaccgtgt tgtgtaactc tttccagcaa agtaacaatc cgccattaca aaggctcgcc 300
tctttgatec agttaacgag tcagaacctc tctcccaatc agcagaacct cgag 354

<210> 1133

<211> 464

<212> DNA

<213> Homo sapiens

<400> 1133

gaattcgcg cgcgctcgac agacttgta ctggaataga agaactacgt actaagctga 60
tacaataga agctgaaaat tctgatttga aggttaacat ggctcacaga actagtcagt 120
ttcagctgat tcaagaggag ctgctagaga aagcttcaaa ctccagcaaa ctggaaagtg 180
aaatgacaaa gaaatgttct caacttttaa ctcttgagaa acagctggaa gaaaagatag 240
ttgcttattc ctctattgct gcaaaaaatg cagaactaga acaggagctt atggaaaaga 300
atgaaaagat aaggagtcta gaaaccaata ttaatacaga gcatgagaaa atttgtttag 360
cctttgaaaa agcaaagaaa attcatttgg aacagcataa agaaatggaa aagcagattg 420
aaagacttga agctcaacta gagaaaaagg accaacagct cgag 464

<210> 1134

<211> 159

<212> DNA

<213> Homo sapiens

<400> 1134

gaattcgcg cgcgctcgac gttgggttat ttgtctcatt ataagtttta ggaattgttt 60
atatattcta gatatatgtt ccgtatrgga tatatgattt gcaaatgttt tttcgcatc 120
tttgggttat cttttcactt tcttggtagt gaactcgag 159

<210> 1135

<211> 419

<212> DNA

<213> Homo sapiens

<400> 1135

gaattcgcgg ccgcgtcgac aaggaatctg agaaaaaggg gttgattgaa agaattctata 60
tgggtacagga tattgtttca actgttcaaa acgtcttggg ggaaatagct tcttttggag 120
aaaggattaa gaacacattt aactggacgg tcccccttct ttcattctctg gcctgtttga 180
ttctggcagc agccaccatc attttgtatt tcattccact gcggtacatc attttaatct 240
ggggcataaa taaatttact aagaagcttc gaaatcccta ttcctatcgac aataatgagc 300
tactagactt cctctctagg gtaccgtctg atgttcaaaa ggtgcagtat gcagaattga 360
aactctgcag cagccacagc ccctctcggg agaagcgcag cgctccaggg cactctcgag 419

<210> 1136

<211> 238

<212> DNA

<213> Homo sapiens

<400> 1136

gaattcgcgg ccgcgtcgac gcatatcagg agagaagttg ggagtcttcc aggtataccc 60
cgtttccatg tttttggtag taaaagggat gctttgcaaa gcccttgatc agtttccag 120
cattttggtt tggatgactt tgacaagtgt tgggaagttg aggggtgttg tggctgatgg 180
tgtctgtttc cccagggccc gcctgaactg taagcactgt gggaagcagg ctctcgag 238

<210> 1137

<211> 220

<212> DNA

<213> Homo sapiens

<400> 1137

gaattcgcgg ccgcgtcgac tgggcttcaa cttgatgttt ttctgctgcc agaagttcca 60
tatattctgt ttcttctttt attgcagcct ctctcagggc ctccaggcgc tgccggctgc 120
tctcttcat gttcacgaca tctttgtaat cccctcgag ggctctctgc agtccgtaga 180
cagcttgga aacggaattt tcaattccat tcagctcgag 220

<210> 1138

<211> 326

<212> DNA

<213> Homo sapiens

<400> 1138

gaattcgcgg ccgcgtcgac caaggaaatg tgagcccgag gctgcagaag gaagagtcag 60
tgaatggctg cgggtgtgaca acatgcacca ccagtggctt ctgctggccg catgcttttg 120
gggtattttc atgttcatgg tggctagcaa gttcatcacg ttgaccttta aagaccaga 180
tgtgtacagt gccaaacagg agtttctgtt cctgacaacc atgccggaag tgagggaagt 240
gccagaagag aagcacattc ctgaggaaact gaagccaact gggaaggagc ttccagacag 300
ccagctcgtt cagccgagtt ctcgag 326

<210> 1139

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1139

gaattcgcgg ccgcgtcgac ctggaaaatc ccaaaatatt tggaaaccat atagcacact 60
tacttctaaa attgtggtag aatacatata acatagaaat tattgttcta accattttta 120
aatgtacaat tcagtggctt taagcacatt cacattgttc tgtttatcta cagaacgctt 180
ttcatcttgc aaaactgaaa ctctgtattc attaaacact aactccccat ttttctcttc 240
ccccatatcc ctcgag 256

<210> 1140

<211> 320

<212> DNA

<213> Homo sapiens

<400> 1140

gaattcgcg ccgctgcgac gactgatgtt ggagtctatg ctcatctgga tgtacttcca 60
 gtcaaaactca atgccccggg ctccgaccca taggggaatg cagcgggaca taataagctc 120
 agcagtggcc cagcccaagg cagcaaccat gatctgtac tctcccttgc cggcattccg 180
 ggacatgaca aggttttagac ctatcaggtc tgccacatcc acgctggcct tcatgaactc 240
 cccaatgaag tcatagatgc cgccttcca ggtgggaag aaagtggcca agaacagcat 300
 cttgcagagg cggactcgag 320

<210> 1141

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1141

gaattcgcg ccgctgcgac ggttttctct gaaatgccaa agccacccga ttattcagag 60
 ctgagtgaact cttaaacgtt tgcctggga acaggaagat ttccgggacc attgcacaga 120
 gcatggagaa tgatgaactt ccgtcagcgg atgggatgga ttggagtggg attgtatttg 180
 ttaccagtg cagcagcatt ttactatgtt ttgaaatca gtgagactta caacaggctg 240
 gccttggaa acattcaaca gcacccctc gag 273

<210> 1142

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1142

gaattcgcg ccgctgcgac tcgaggagtg ccctaactga cgaggacccc caggcggcgt 60
 tagaggagct gactaaggct ttggaacaga aaccagatga tgcacagtat tattgtcaaa 120
 gagcttattg tcacattctt cttgggaatt actgtgttg tgttgctgat gcaaagagac 180
 ctcgag 186

<210> 1143

<211> 289

<212> DNA

<213> Homo sapiens

<400> 1143

gaattcgcg ccgctgcgac tgctcagca cctttgact ggttggtccc ttagtctgag 60
 atccactttt accattgtt cacttttca ttcatatttg gttctctca aacattgtct 120
 cattatagaa accitgectg acaactctaa catgtcagcc tctctgcgt tcttaggacc 180
 tttctctct cttacctgt tttttcttt cccactatg atttggtatc aaaatatttg 240
 tgcattttgc aattcagtg ttacagctg tcaagccacc caactcgag 289

<210> 1144

<211> 534

<212> DNA

<213> Homo sapiens

<400> 1144

gaattcgcg ccgctgcgac gctgcttita ttctctgagc cttgactctg tcccaggcct 60
 gccctggagc gctgcacgc tcagctccct gaggtaggtc cggagggaga cccccgctg 120
 cccccgccc tggccagga tacctctcac ctcatgtccc ctccctcaga cccccacagc 180
 cctggatgcc ccatagcagc cctgccacgg ctggcagaac tgctccacc ctccaccaac 240
 cccaagaca ggcaggtcga cgcggcgcg aattcgcggc cgcgtcgacg tggagaagga 300
 cgtgccgtgc cgtgggttc tgagccggag tggctgggtg gtgggatgga ggcgacctg 360
 gagcagcact tggagacac aatgaagaat cctccattg ttggagtctt gtgcacagat 420
 tcacaaggac ttaattctgg ttccgcggg acctgtcag atgagcatgc tggagtgata 480

tctgttctag cccagcaagc agctaagcta acctctgacc ccaactgaact cgag 534

<210> 1145

<211> 149

<212> DNA

<213> Homo sapiens

<400> 1145

gaattcgcg cgcgctcgac ctaaaccgtc gattgaattc tagacctgcc tcgagaacca 60
ccccccacct ttggcctct tcatttattc cttaaatgtt attcctcaga cctccatttt 120
ttttttctct cttatccaca ccaactcgag 149

<210> 1146

<211> 138

<212> DNA

<213> Homo sapiens

<400> 1146

gaattcgcg cgcgctcgac tctagacctg cctcgcgga cttcagtttg taaacaggct 60
ctgggtttcac aaggctaaag aactccagggt gaaattcata gacattgtct cctttggcac 120
catgtccttg ggctcgag 138

<210> 1147

<211> 246

<212> DNA

<213> Homo sapiens

<400> 1147

gaattcgcg cgcgctcgac gttttgtctg ctttaaaatt ctgtattata ctgcatgtac 60
tcttttatgg cgtgcttttt tccttggtat tgtatcatga acactagttt gtttttctgt 120
ttttttcttc cgttctgttc ctggacattt ttattttcag gatttggttg tatcatatca 180
gaaagaaacc tgtactcaat ggcagttact cctcatttct catctctttt cccccgaac 240
ctcgag 246

<210> 1148

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1148

gaattcgcg cgcgctcgac gttcactgag caattacata gattaacagt tacaagtttc 60
cataaatcag ttagaatatg actagcttca gggaaggaa tttcaacaac tgcaatcttt 120
gattgtttta ctgtgggaac ttgcagtgat ataattgaca acattattta acaataatag 180
gtatctcgag 190

<210> 1149

<211> 361

<212> DNA

<213> Homo sapiens

<400> 1149

gaattcgcg cgcgctcgac tgattatagc aaattcatatc aaaccagacc taaaagaaaa 60
ctcagaaaagc aacatggcaa tggaaaaaga aattggaaga ccagaggcac aggaggaaga 120
ggcagatggg gaagatgacg tagatggagt agaggaggca gaggaagagg aggcagggga 180
cgaggagatc gaggaagagg tggaggtggc actaggggga gggaagagg gagaggagga 240
agaggtgctt cttagaggagc taccagagcc aaacgagcac gtattgcaga tgatgaattt 300
gataccatgt tttcaggagc tttcagtaga ctgcctcgaa ttaaaacaag aaaacctcga 360
g 361

<210> 1150

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1150

gaattcgcg cgcgctcgac ccactgcgca cagcccatTT atattaaagt gaagttgatt 60
 atagtTtcat atgtcttaag gaccattaaa aaaatttttt tggTgaatta tttattcata 120
 ttttgettat ttctcaacag gatatttgTt tttttccttc aattttttaa agttcttcaa 180
 gtattaggga taatgtcatt atctgtgaag tgttttgcTc atatttgctc agcttgtttt 240
 ttgactttgc ttgttttttg tttttattct tttttgccac acaagccaga tctcgag 297

<210> 1151

<211> 346

<212> DNA

<213> Homo sapiens

<400> 1151

gaattcgcg cgcgctcgac caagtatgtt ctcagaagct atacactcat tatctgatac 60
 ttgtaatcag ggtttactag cattgggcat cagtaagtct gttcaaacac cagatccttc 120
 tcatcgtac ggattttcga atatgcgcta ttttctctgc ctaattagtG gtgttggtat 180
 tttcatgatg tgggcaggac tatcttggtc ccatggagtc atgggattgc ttcaccccca 240
 accaatagaa tcccttctat gggcatattg tattttagca ggatcattag tatctgaagg 300
 agcaacactt cttgttgctg taaatgaact tccaggaaag ctcgag 346

<210> 1152

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1152

gaattcgcg cgcgctcgac ctgaatgccc catgcgcacc ccacagctcg cgctcctgca 60
 agtgttcttt ctggtgttcc ccgatggcgt ccggcctcag cctcttctc ccccatcagg 120
 ggcagtgcce agtcttttgg agctgcagcg agggacggat ggcggaaccc tccagtcccc 180
 ttcagaggcg actgcaactc gcccgccctg gcctggactc cctacagtgg tccctactct 240
 cgtgaactcc ctcgag 256

<210> 1153

<211> 181

<212> DNA

<213> Homo sapiens

<400> 1153

gaattcgcg cgcgctcgac tagaagtga cagagaatta cacaagtgtg actatacaaa 60
 ttgtaaaaca gatactataa tatttctctt tattttagtG ttatttagct ttattacaga 120
 tttctatttt tgtcaaaact tcatggttcc ttccaagatc ttttttgcca aaacactcga 180
 g 181

<210> 1154

<211> 304

<212> DNA

<213> Homo sapiens

<400> 1154

gaattcgcg cgcgctcgac agaataatt attcccacag gaaaaactca gaaaagggtg 60
 gtaaaatcct cagaaggggg agcagttgat tcagtaagac tgcgacaatt taatactgtt 120
 acgcttgctt tgatacctga ctaaattgtg ctgagtgcaa caagcattta agaaaatttt 180
 tagacagtgt tttgtttaga attcaggat catgcattct ttaatggtgc tgtttgtttt 240
 ttatttcttt tctacaaga aaacaagtgt tgcctacaaa agtgactgct cacaatacct 300
 cgag 304

<210> 1155

<211> 194

<212> DNA

<213> Homo sapiens

<400> 1155

gaattcgcg cgcgctcgac attggatttt ggtccatagt tggaggctgt gttgttgga 60
 tagctatggc aagggttgca gattttatca ggggtatgct gaaactaatt cttctctccc 120
 tgttttcggg agctacactg tcatccacgt ggttcaccct gacctgttg aacagcatca 180
 cacacccct cgag 194

<210> 1156

<211> 537

<212> DNA

<213> Homo sapiens

<400> 1156

gaattcgcg cgcgctcgac gcttagaggt catctttcaa ggaggcatta aatatcaatt 60
 ataaattatt aagtcagata aatatgcctg accttttcac agttgaaaaa atacattttt 120
 tccccctctat caaatgccaa gtttttagtg gaaatgctaa tggcagtggg aaagggtgcc 180
 tcaatttcag agagactctc gctgtctgca cctttttaat aattgctctt cctggcaagg 240
 ctgccacttc cctgcctccc cagctggcag tggggcaacc caggcctgtt tccagctacc 300
 tgcaaaagcca gacctagacc tgccgtagct gttgtcccat gcctaattct agttacagga 360
 agccatccct gtaccctggg tccattcaca ggaatgggtt ccagaggagg ctgatagaag 420
 ggtttgaaat gactggctgg atcccttctt gctcagacac agtggtagct ggagagcagg 480
 cagagatggt agaattgcag gtttgaccac ctgtcgtgac cccagaagct actcgag 537

<210> 1157

<211> 580

<212> DNA

<213> Homo sapiens

<400> 1157

gaattcgcg cgcgctcgac cacttttaaa aaacaaaaaa agacaagaga gatgaaaacg 60
 ttgtattatt ttctcagtg atttttgtaa aaaatatata aagggggtgt taatcggtgt 120
 aaatcgctgt ttggatttcc tgattttata acaggggcgc tggttaatat ctacacaggt 180
 ttaaaaaatc agccctaat ttctccatgt ttacacttca atctgcaggc ttcttaagt 240
 gacagtatcc cttaacctgc caccagtgtc caccctccgg ccccgtctt gtaaaaagg 300
 gaggagaatt agccaaacac tgtaagcttt taagaaaaac aaagttttaa acgaaatact 360
 gctctgtcca gaggtcttaa aactggtgca attacagcaa aaagggtatc tgtagcttta 420
 acttgtaaac cacatctttt ttgcactttt ttataagca aaaacgtgcc gtttaacca 480
 ctggatctat ctaaatgccg atttgagttc gcgacactat gtactgcgtt ttctattctt 540
 gtatttgact atttaatect ttctacttgt cgccctcgag 580

<210> 1158

<211> 397

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (27)

<400> 1158

gaattcgcg cgcgctcgac ctgccangtg gatgagaagt gattacctgt ggaaattcat 60
 agtgttatct ttttatagca ttcatttaca aaggttggat ttatgtaggc cttttcttt 120
 tgtcttttat tgcagatatt caagagaagc ttatgtggag ttatgtcacc atattagaga 180
 atctattcca ggtgtgagcc tcagcagcga ttctattgct ggcttttgtg gtgagacgga 240
 ggaagatcac gtccagacag tctctttgct ccgggaagt cagtacaaca tgggttctct 300
 ctttgcctac agcatgagac agaagacag gcatatcat aggtctgaagg atgatgtccc 360
 ggaagaggta aaattaaggc gtccggagga actcgag 397

<210> 1159

<211> 198

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (30)

<400> 1159

gaattcgagg cgcgctcgac agattatata acaatttata ttcaattcta gattctaagt 60
ttcttttggg caagaatatt tattttccct gtgtcaattc agggactcca gaaacagaa 120
gctaagaaca gaagcaagtg ctggagattt actgagaggt tacacttggt gaagatgaag 180
tgtagcggca tctcggag 198

<210> 1160

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1160

gaattcgagg cgcgctcgac attaaagggt aagttctgca aatgggagag tgttcacagt 60
agatagctca gattgattga acacatttga ggaagagact cctgcatgag ataccagcat 120
ttttacaaat actttttatg tacattcttt attttgtcat ttgtcaacc ctctcccaa 180
ctcgag 186

<210> 1161

<211> 298

<212> DNA

<213> Homo sapiens

<400> 1161

gaattcgagg cgcgctcgac gcttggcaag gagactaggt ctagggggac cacagtggg 60
caggctgcat ggaataatc cgcagggtcc cccaggcaga acagccacgc tccaggccag 120
gctgtcccta ctgctgggtg gagggggaac ttgacctctg ggagggcgcc gctcttgcat 180
agctgagcga gccgggtgct gctgggtctgt gtggaaggag gaaggcagg agaggtagaa 240
gggtgggagg agtcaggagg aataggccgc agcagccctg gaaatgatgc aactcgag 298

<210> 1162

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1162

gaattcgagg cgcgctcgac gccagttata gactgtccag catccaagac gtttcggtta 60
tgtcgggtcc tcagatcgcc tctgacttgt taccacaaca aatcattttg atttcagtgc 120
ctgttgggga cttgatttct tctcagtttt gtttgtttgt ttgttctctt aatctggctc 180
atttgaaatt tcttctccct ctcaaccatc ccaactaatct cgag 224

<210> 1163

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1163

gaattcgagg cgcgctcgac cccatggcca ccctgtccta tgagctcac agctccacc 60
tggagatatt aacagtgaac actgtcaagc agacacctaa ccacatcccc tcaacgatca 120
tggcaaccac ccagcctcca gtgaaacca ctgttcttga gatccaggat agcttcccat 180
acctgctgtc tgaagacttc tttggacagg aaggccccgg gccagggtca agtgaggagc 240
ttcatccac cttggagtcg tgtgtggggg acggtatgcc tggcctcagc agaggccctg 300

tgatcgccct cgag

314

<210> 1164

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1164

gaattcgcg cgcgctcgac gtaataaatt attcactgtt tcttttggtta actgtgattt 60
aaaaaaagaa aaaagaaaaa aaagctttat acgttttagg ttgtgctttt gtaatagatg 120
aaaaaagggtg cgcttaaaaa gaaaatgtat gtttttttcc ccttttggtat tttatttatg 180
ctggattggg gaaagttgca gaatgagcgc caactcgag 219

<210> 1165

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1165

gaattcgcg cgcgctcgac atccctcagt gaacatttgg gttgcttcca ccttttaact 60
tgtgtagctt tttttggggg gatattttgg ctctcaaaag gacaaaggaa aaaattaggt 120
tcagttgcta ggattactca catgagggga ggcattggga ggaccatact cgag 174

<210> 1166

<211> 221

<212> DNA

<213> Homo sapiens

<400> 1166

gaattcgcg cgcgctcgac gatacttatt gctgcctctg caccaatatg ctttcgaag 60
tgctgttgtt tctctctcaa tatttgacac tttgtggtga tatccaacta atgctggccc 120
agaatgcaaa taatagagca gcacacctg aagagtttca ttaccaaa aaagaagacc 180
aggagatcct gcatagcctt cacagagagt ccacctcga g 221

<210> 1167

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1167

gaattcgcg cgcgctcgac tgggttttca catgtattt caggcttgcc ttttttatct 60
gtatttcttc gtatgcagtt gtgcacctga gaaatggcct cttccagca atctcgag 118

<210> 1168

<211> 248

<212> DNA

<213> Homo sapiens

<400> 1168

gaattcaaca agaggcagtt ctttactaat caacatataa cttgaatacc tgggcaaaga 60
caaattattc aggtggacaa agaaataaat gaataaaagt gggattcaaa tttttgattt 120
cataagttcg gaaataagta atcaagaaac ctaactaata aaccacacaa tcaactgattt 180
gcaaacttga acaccaaaga aaaagataatt ttatggtaac tatattcatt tttttgttc 240
tccctata 248

<210> 1169

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1169

gaattcgcg cgcgctcgac cagcctggaa ggtaatgcat gtccatggta cacaaattca 60
 caaggtttgt aaatgagaaa agacgtgagg ttccttttgt tctttacctg tggcctccct 120
 gccctacacg gggactctag ggtggaatgt agcaaagccc atccaccagc catgtactac 180
 cccccccgc tcgag 195

<210> 1170

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1170

gaattcgcg cgcgctcgac gtgggtggaca gctgtagtga taatgttgat agtaggtata 60
 ataacaccag tggtttattt gctgtattat gaaattttag ctaagggtga tgtagtcat 120
 cattcaacag tggactcttc acatttacat tcaaaaatca ccccccatc acagcagaga 180
 gaaatggaaa atggaattgt gccaaactaaa ggaatactcg ag 222

<210> 1171

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1171

gaattcgcg cgcgctcgac tagaagaac ccagaaattc agtcttttct gttttattgg 60
 cagtggctag catgttctct ggtcaacta aagttcgaag caggccata agctggactg 120
 ctctccaag ttcaggatct gtatcacaag tcatatgttc tataatgagg ttgatgagca 180
 aaatatactt gctggttatt ttttgctctg ttaacttctt acttacatca tcattctgtt 240
 gtgctcctg catgacaaac tctcgtacca tggatggatt atattcaacc aagtatgaga 300
 atatatact cgag 314

<210> 1172

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1172

ggattcgcg gccgctcgca cgcatttatt aaccagagta ctgtttgca attttttatc 60
 tgtgaaaata ttttaagct cttacaaaac ttaaattttt aaaaaatcag ctcaaaaatt 120
 ttttccatgt tgttgggcat accactgctg tctctgcttt cggtttccca actcgag 177

<210> 1173

<211> 232

<212> DNA

<213> Homo sapiens

<400> 1173

gaattcgcg cgcgctcgac gtttggagaa cctgtgtgaa aatccatact ttagcaattc 60
 aaggcaaac atgaaagacc ttatcctact ttggccaca gtatgtcca gtgtgccgaa 120
 ctttaaacata ttcggatttt accgtagcaa tccagaacag attaatgaaa ttcacaatca 180
 aagtttgcca caggaaattg caaggcactg catggttcag gccagctcg ag 232

<210> 1174

<211> 252

<212> DNA

<213> Homo sapiens

<400> 1174

gaattcgcg cgcgctcgac ccagactata tagttcaaag agaattccta tttttcgta 60
 ggtatgaac aaaacaatgc agtttgtatt atatcgtatt ttgtattgta ttatatgatg 120
 ggtctcactc tgttaccagc tctagagtgc agtggcacga tcacagctca ctgcagcctt 180

gacctgccag tctcaagcaa tctctctacc tcagcctccc aagtagctga gaccacaggc 240
actcaactcg ag 252

<210> 1175
<211> 464
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (13)..(14)

<400> 1175
gaattcgcg cenngtcgac gcatatactg ccattgtcaga ttcctactta cccagttact 60
acagtccctc cattggcttc tcttattctt tgggtgaagc tgcttggctt acgggggggtg 120
acacagccat gccctactta acttcttatg gacagctgag caacggagag cccacttcc 180
taccagatgc aatgtttggg caaccaggag ccttaggtag cactccattt cttggtcagc 240
atggttttaa tttctttccc agtgggattg acttctcagc atgggggaaat aacagttctc 300
agggacagtc tactcagagc tctggatata gtagcaatta tgcttatgca cctagctcct 360
taggtggagc catgattgat ggacagtcag cttttgccaa tgagaccctc aataaggctc 420
ctggcatgaa tactatagac caagggatgg cagcaacact cgag 464

<210> 1176
<211> 170
<212> DNA
<213> Homo sapiens

<400> 1176
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actttctct catctccctt agaaggctct ctttctccca ggggtgggggt ggggaagagc 120
tgacaggaca ccctaagtc atcctgattt tgcagaacct aaggctcgag 170

<210> 1177
<211> 207
<212> DNA
<213> Homo sapiens

<400> 1177
gaattcgcg cgcgctcgac gtgattgtgt tttttaaag ataagtaatt tgatgaactg 60
ttcttttgca gtcagaaaac actcacaaa agacaaaaaa agttccacag tattatattt 120
catgtcagtt caggcctaaa atcctttgca aataagatgt ttataggctg gtcacaatta 180
acaatgttat tattggcaac actcgag 207

<210> 1178
<211> 163
<212> DNA
<213> Homo sapiens

<400> 1178
gaattcgcg cgcgctcgac attgaattct agaattgact ctctctctc ctctaccctc 60
acttctaag actaggtaca tttctacctt gctttcaatt ctaccttgct ggtgttttcc 120
attagtcatt tttttcccat tgtctcttac cacacaactc gag 163

<210> 1179
<211> 313
<212> DNA
<213> Homo sapiens

<400> 1179
gaattcgcg cgcgctcgac caaagatgtg tacaaaattt tatcttttca gccctcaaat 60

attgattttg aacattatct tgcaaagagc actaagtggg tggttagtgg agatagagga 120
 atatgcagct ttgactatc tttcctttcc cgtcagtacc agctttcatg atacaatttc 180
 ctcttatcac ttgtgcaag aggtggggca gaaaattttg agttacagta tcattcgaag 240
 agaatttatt tctgcctttc atgttatagc ccctaaggga tccaggaccc gaaaggccag 300
 cttctccctc gag 313

<210> 1180

<211> 227

<212> DNA

<213> Homo sapiens

<400> 1180

gaattcgagg cgcgctcgac ggcataagata agtttatgga agacctaataa gatatgctgg 60
 gctttgctcc cagcagatat tactactata tgtggaaata tatttctcct ctaatgctat 120
 tatcattgct aatagctagt gttgtgaata tgggattaag tctcctggc tataacgcac 180
 ggattgaaga taaggcatct gaagaatttc tgagctatcc actcgag 227

<210> 1181

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1181

gaattcgagg cgcgctcgac atttgccaca aacgctgtta actggactca cacatactat 60
 gtgtacctta atgatttatt tactctatgg acagttatta gaacatctgg tatgtgggtca 120
 cccgtgcgga gccaaaggaga ttagggcggtg ggggctgcag tgtcagcctt cccgggagtg 180
 cacggtccag ccagggaccg gggccccctg ggagctgtgc ttcagaagct tactgactga 240
 tgaaagcctc gag 253

<210> 1182

<211> 153

<212> DNA

<213> Homo sapiens

<400> 1182

gaattcgagg cgcgctcgac cttctatata actgaaatag ttccttgaac atttgataaa 60
 gtttctctta gaaagaaact ggatttgggtg cttcattagt aatagttaac tgatcacatg 120
 ctaatttttc cctgttctct gtatttactc gag 153

<210> 1183

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1183

gaattcgagg cgcgctcgac caggcatcca caaaagaaga ccaagctttg tccaaagagg 60
 aagagatgga gactgagtca gatgcagagg tagaatgtga cctgagcaat atggaaatca 120
 ctgaagagct ccgccagtac ttgcaaagt cgctcgag 158

<210> 1184

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1184

gaattcgagg cgcgctcgac gtcaaagtgc tccattatca tttgttacag gctattcttc 60
 tactgaattg cttttgctcc ttgccaataa gtcagataga tgtattttgtg tgggttggtt 120
 gctgggtttt tgaattcttt tctgttgatc tctgtgtctg ttcctctgtc tataccacac 180
 tgtcttggtt actgtagctc tagtgatagg tcttcacatc aagcaagaat gctcactgcc 240
 cccctcgag 249

<210> 1185

<211> 151

<212> DNA

<213> Homo sapiens

<400> 1185

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagggtga 60
taaccctatc tctacaaaa aaagaaaaaa aaaaacaaaa aaaaacttag ctaggtgtgg 120
tggcatgcgc ctgtggtccc ggctactcga g 151

<210> 1186

<211> 267

<212> DNA

<213> Homo sapiens

<400> 1186

gaattcgcgg ccgcgtcgac gtttatttca cagcactgag gaggaccagc atgcattctt 60
ctcttaacac aagtcggaat caacaacctg acactaactt ggctcatgtt ggagctcaca 120
gttttgctac agaaaatatt attgggggat ctgaacaatg ttttgaacag cttagccag 180
aatattcttc acaggaggag agccagcatg ctgatctacc aagtattttt agcattgaag 240
caagagattc ttcccaaggc actcgag 267

<210> 1187

<211> 230

<212> DNA

<213> Homo sapiens

<400> 1187

gaattcgcgg ccgcgtcgac cgatgacgac gaggaggaga agctcacccc agtgaggcca 60
gggggggttcg tggccgtggt ctgtcccgat aggtcttttc ggcagacggg gcagctgtcg 120
tgctgtctca gccagggcac gatgcagcgg tcgtggaaca ggtggttgca gggcagctgc 180
cgcacacgct caccagcgc gtagtcgtcc ttgcacacag ggcactcgag 230

<210> 1188

<211> 184

<212> DNA

<213> Homo sapiens

<400> 1188

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ctgtttgagc agtattttta ccaacttgta ttacagatgt tacagttcca tgttaggaag 120
tcagaaaaga cttgtgttg tctttgttct gctgatgtgg agtcatgttt ggtggggtct 180
cgag 184

<210> 1189

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1189

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atccatacaa cctctacttt ttctaggcac taaaaggggg aaaaggctta atagccaaaa 120
tagttatcaa aagaccctaa agctgggggtc ctgtacacca tgaaggatt actttcattc 180
tcatgtaagg gactactcga g 201

<210> 1190

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1190

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 tttttatttt tggtagacat gggggtcttg tctctctgtg ttgcacaccc aggtcgtct 120
 ccagctcctg gtgtgtccag aattgggtcc ttccagtggg ttcttggctc cgtgacttt 180
 aagaataaag ccgcggaccc tcgaagttag tttacagtt ctctcgag 228

<210> 1191

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1191

gaattcgcgg ccgcgctcgac cgagttgatg gggtccttgg acatatgttt tttcaaaatt 60
 ttggaagcct tttcaaatc tttgtttttg atacaaataa tgacagcagc ttccttgacc 120
 agttttctac tggattcgac cactgcttct gtcagtgtta attccgtttt aatcatctcc 180
 agcacattga tagctgattc cagtgggtgt agctcagcct ccatatcaaa ggaacagtct 240
 aaattttccc ctcttcaat ccgcgacaga ctcgag 276

<210> 1192

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1192

gaattcgcgg ccgcgctcgac cagaacttta ttttagctct ttttaaaaa tgatttgcac 60
 ggtagaaaa ccgcgaggac agccagggga ggggaagggc tctagggaac tttgcacttt 120
 ctataccttt gtactatgca ctgccctatt gattctacac ccaataatga tattacttga 180
 acccatccac ctcgag 196

<210> 1193

<211> 315

<212> DNA

<213> Homo sapiens

<400> 1193

gaattcgcgg ccgcgctcgac ttctcgatc atttcaaaga tgctaaagc agatttctat 60
 gttctggaaa aaacaggact ttccattcag aactcatctc tgtttccaat actgttacat 120
 ttcatatca tggagccat gctgtatgcc ttattaaata aaacttttgc ccaggatggg 180
 cagcatcagg tgctgacat gaatcgaaat gcagtgggga agcattttga actgatgatt 240
 ggtgactccc ggaactagtgg aaaagagcta gtgaagcagt ttctcttcca ttctatacag 300
 aaggcggatc tcgag 315

<210> 1194

<211> 264

<212> DNA

<213> Homo sapiens

<400> 1194

gaattcgcgg ccgcgctcgac ccatcagtga aggaaccatc caaaactgct aaacagaaaa 60
 ggagaactat aattctagga agtgggcaca aaggaaaagc tactattaga attggattgg 120
 ctacaaagaa acctgtaagt agtggcagaa aacactccct tggtaaagaa tattatgcgc 180
 ccgcacctct tccacctggt gtgtctggtt tcttggcgtg gcgtactgca gaacgtgcaa 240
 aaagacacag gggtttccct cgag 264

<210> 1195

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1195

gaattcgcg cgcgctcgac gaggatagca ggcgtaata cctactgtaa tacaatgtca 60
 ctgtgtttcc tctgactgt tcccttccac tctctcatcc tctttgtgac atggaagttc 120
 attgtcatag cttcagcttc agaagctgtt tgtggcattt gtaggattca aactcatgga 180
 aaattccctc ctcttccccc cccactcgag 210

<210> 1196
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 1196
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 caagtcctat caatgctatt gctgaaattt ctcttgaatc catctacttc tttccacgtc 120
 cacagccacc atctacccc cagccttcac ctctcttttc ttgatgatgg catgacctcc 180
 taccagttt cccggcaact actcgag 207

<210> 1197
 <211> 272
 <212> DNA
 <213> Homo sapiens

<400> 1197
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 ctctccatag atctcctcc atttccctt ccatggctcc catcttctt ctgaaatgtc 120
 tactccttca tgttcttta tgtatgtctt ccaatcttct cttccatagc tctcatcacc 180
 ttcatatatt tcttccatct ttctcctccc acctgctctg cctctgtat ataccccccac 240
 tctccccctt ttatatcttc tccacactcg ag 272

<210> 1198
 <211> 263
 <212> DNA
 <213> Homo sapiens

<400> 1198
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 tcatactctg aggatataat agagagtga tacttgaggg tagaattaat caaacaactc 120
 ttcttgatgc tggatatttt agcctaaagg aaaatataat acatgagttt agcttttaac 180
 gtttcaacag ctctactgat tgtccagaag tcattgtgtg cccactttcc tcatgtgttc 240
 atctattgcc agtgttctc gag 263

<210> 1199
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 1199
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 ctcaacaaga ctatgcgcac tcgcatgaca gatggacgga cactgggtcgg ctgcttctc 120
 tgactgacc gtgactgcaa tgcacacctg ggctcggcgc aggaattcct caagccgtcg 180
 ggtcagtgcc cggggaatgc acaccgccc ggtaatgtgg cggaaacctta cgcaaggcat 240
 tcccccttaa gggcctggct gcaacccttg tttctgggg ctcgttttcg tggctcagag 300
 gggcgggact gattctggcc tactttctg acactcactc gag 343

<210> 1200
 <211> 187
 <212> DNA
 <213> Homo sapiens

<400> 1200
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agaagtatca ttcaggggtg aaaaacaaag agccgtttta atgatgttga gtacatttgg 120
 ctgttttata gcctttttct tccctccccc aaagaattct gtttgcttaa ctcccaaaca 180
 gctcgag 187

<210> 1201

<211> 261

<212> DNA

<213> Homo sapiens

<400> 1201

gaattcgcgg ccgcgtcgac ctgaccttgg aagatatccc tgggaattccc aagcaaggca 60
 atgcaagttc ctccaccttg ctccaaggta ctgggaatgg cgttcctgcc actcaccctc 120
 accttttgtc tggcctctct tgctcctctc ctgccttcca tctggggccc aacaccagcc 180
 agctgtgtag tctggccctt gctgactatt ctgcctgtgc ccgctcaggc ctcaccctca 240
 accgatacag cgcattctga g 261

<210> 1202

<211> 280

<212> DNA

<213> Homo sapiens

<400> 1202

gaattcgcgg ccgcgtcgac ctgattccag cctgggtaac aaagcaagag cctgtctaaa 60
 aaaaaaaaaa agccagggtta tttttgtttg ttttgttttg tttttccctt tctcagttac 120
 tcattccttt tagattgaag gattgatgca tttatttatt tatttattct tttaccaagc 180
 ctcatgtact ttatgttttg agaagaggat tctgctaaat tcttgggatt attcagagggc 240
 ttatacacca acaaaagaaa aagaaagcca acaactcgag 280

<210> 1203

<211> 155

<212> DNA

<213> Homo sapiens

<400> 1203

gaattcgcgg ccgcgtcgac aaaaaaaaaa agaagtactt cacattactg tcatcaaaag 60
 tagattccac caccagagta tttgcaactt ggaattccagg ctgctaataa ttgttttggg 120
 aggaaagcat gatagtgtta ggattcgcac tcgag 155

<210> 1204

<211> 307

<212> DNA

<213> Homo sapiens

<400> 1204

gaattcgcgg ccgcgtcgac gttttgttat ataggtaaat ctgtgccggg gtggtttget 60
 gccctatca acccatcagc taggtattraa tcttccatct tttaaagctc actttaactt 120
 ccacttttcc atgaagcttt tctgtatctt cctcctcctt ccatcctgga aaatccttgc 180
 agtttgttct gcagcatcac acctagtgtc tagccatccc tactttgtcc ctacactttt 240
 tgaattgctt accaacaact tagagaggga gctagagatt gttgctggcc attgtctcaa 300
 actcgag 307

<210> 1205

<211> 586

<212> DNA

<213> Homo sapiens

<400> 1205

gaattcgcgg ccgcgtcgac agagaaatga aacggaagag aaaaaaagga gtttctgccc 60
 ttcagagaga gctcaactgc ctgtgtgtcg ctccagctcc ctccctgtt cacaataagt 120
 caaagtcac acctcaaact caaatctatt tttaataaag aaagaaggcc agtgaagagg 180

ggcaggcaag atgtggccaa ggaaggcatt ggggaaaagg taacatttgt actgggagtt 240
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 agagtccag aggaggagtt tgcagggaca gcagggtgga cttgatgagt tagaatttca 360
 gatgtgatga gtttgaagca cctgggaggc atctaagtag acatgattac cagacacctg 420
 gagctgaata agaggtcctg gagatattga tttagaggtg attgttctct catccatgta 480
 tccattcatt caccaggca agggaaatgt gtacagtacc tactctaggc aggcctatg 540
 ctggatattg ggaatacaat gatgaacaaa acagatgccg ctcgag 586

<210> 1206

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1206

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 ggcaagttgg tgagggcctt cagcaggatc tgggcgggtga ccgtgggtctg aaagaaggct 120
 tgggtgaact ggtacagctt caggacagcc aggttggtct ccagatcata ggcattttcc 180
 ttggcctcgc tctctacata gcgtccagg gtggccagggt tctcaggatt gtacctgtcg 240
 ataccctcgt cgattgaatt ctagacctgc ctcgag 276

<210> 1207

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1207

gaattcgagg cgcgctcgac attgtgttag cctgttccct gagctctctt cgtgatcaag 60
 aagactgatc agataaatca agagacttgc ccaaaattac ctaggaaatc tgtagcagca 120
 gcagaaccaa actccggtcc ttgctaaatc tagataccag gctagctttt ctatggacc 180
 agaattaacc catacaaatg tacaagctta tcctcgag 218

<210> 1208

<211> 398

<212> DNA

<213> Homo sapiens

<400> 1208

gaattcgagg cgcgctcgac ccgagcctca gttgtcttct ctgtgagggtg ggaatgccgg 60
 tgaatcctgc cgctggcgtg gatgagaagt gaatgcgtgc tcggagctgc gaggacagc 120
 gggcaggagg cggccaggga cacttggttt ctccagggtt ggaaggcttc tagaagggtc 180
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 gggccagcgc acaagagcca ggcagcccta cagaaggctg gggagggtgg ccctcccgcc 300
 atgtaccagt tcagccagta cgtgtgtcag cagacaggcc tgcagatacc ccagctccca 360
 gccctccaa agatttactt tccatccat cactcgag 398

<210> 1209

<211> 456

<212> DNA

<213> Homo sapiens

<400> 1209

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 tgtgtgtgca catgcatgta aaccaggagc cttcagctca cggcctccag gcctgggcca 120
 gttcttgtct ctctgccgt ctccccgac tggctgtgtc ctgagtaact ggaacatgag 180
 actgtatctg caggactggc cccatggtgg ccgagtcaga agtctgtttc ctgtgagtcg 240
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 gttctcaagg ctgggtggcag ctacgtctgg ggtcaggaca tgcgggggtc atcggtttct 360
 ggccctgaca taagctgtct ggcctctctg tgacatgatg aaattgaaat caatccacag 420
 tccatgaaat tgtgacactc caccagatat ctcgag 456

<210> 1210

<211> 408

<212> DNA

<213> Homo sapiens

<400> 1210

gctcgaggtc catatggata atcttcaagg gtaaattcac tgagatgaac tgcaaactcc 60
 cctttccaca tgcagcagca ggacatacat gtctgatgg gtttgtgtaa ccttgccaga 120
 atggctggca ggacaagtta actatcattc ccttcacaaa tcagtcagtc aggaaatccc 180
 tacgtgggaa ggatcacagg gcctacaaag aggcagtgac agcaaaactt cagctgctat 240
 tgaatctgaa tgcatttctg gttttttaac cagatcccca gcaagtaatt ttaacagccc 300
 gtaaatgtag agtatgctag actatgagga cacagatgcc cagcccagtg tggggggtaa 360
 gttctacact gcactgtcct tccacagggc ccttcagggc cactcgag 408

<210> 1211

<211> 389

<212> DNA

<213> Homo sapiens

<400> 1211

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 tctcttggc tgtctatctt gatcaagtca ttccagggga atttggtta cggagatcat 120
 ctttatattt tctgaagcct tcatattggt caaagagcaa aagaaattat gaggagtat 180
 cagagggcaa tgttaatgga aatattagtt ttagtgaaat tattgagcca gtttcttcag 240
 aattttagg aaaagaagcc ataagaatta gtggtattca gaagacatac agaaagaagg 300
 gtgaaaatgt ggaggctttg agaaatttgc catttgacat atatgagggt cagattactg 360
 ccttacttgg ccacagtga acactcgag 389

<210> 1212

<211> 402

<212> DNA

<213> Homo sapiens

<400> 1212

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 gccactggc ctggcctcat tgtactcctt aacacaagaa gacttcaaca atgataagta 120
 gttgtttata aggaagcagg atcattacca aaataaatcc tgctaaaaca acaggaatca 180
 tgttttaaag cctagtttgc taatttttgc tagtaggata agagtgatcg taatatctcg 240
 aacattacat agacacttaa aacctttagt tgtatttcat caaaaaatctg ttcatacccc 300
 acgttggttt caaaacatac tatgtttttt ctctgtgta ttctctatat tcatttttgt 360
 gtgtatgtgt atgtcacaaa tattgatatg cctgggctcg ag 402

<210> 1213

<211> 168

<212> DNA

<213> Homo sapiens

<400> 1213

gaattcgagg cgcgctcgac gagggtgatg ggcgtgttct ggggcttcgt cggttcttg 60
 gtgccttggg tcatccctaa gggctctaac cggggagtta tcattaccat gttggtgacc 120
 tgttcagttt gctgctatct cttttggctg attgcagcaa acctcgag 168

<210> 1214

<211> 180

<212> DNA

<213> Homo sapiens

<400> 1214

gaattcgagg cgcgctcgac caaaaaagtc cttttgaaa agttgatgat gatgattttt 60
 acatcagaga atatcttttag atcacgttta agagatgatt actgggtgta tgtagatag 120

caagtactgt ggatggttta aggggtgaata ggaaatatct agatgttaag gggctctgag 180

<210> 1215

<211> 506

<212> DNA

<213> Homo sapiens

<400> 1215

gaattcgcg cgcgctcgac cagcaatccc tccctagggtc aatcgctccc aaacccttaa 60
ccatgagact ccccatgaac cagattgtca catcagtcac cattgcagcc aacatgcctt 120
cgaacattgg ggctccactg ataagctcca tgggaacgac catggttggc tcagcaccct 180
ccaccdaagt gagtcccttg gtgcaaatcc agcagcagat gcagcagcag catttccagc 240
accacatgca gcagcacctg cagcagcagc agcagcatct ccagcagcaa attaatcaac 300
agcagctgca gcagcagctg cagcagcggc tccagctgca gcagctgcaa cacatgcagc 360
accagtctca gccttctcct cggcagcact cccctgtctc ctctcagata acatccccca 420
tccctgccat cgggagcccc cagccagcct ctcagcagca ccagtcgcaa atacagtctc 480
agacacagac tcaagaatta ctcgag 506

<210> 1216

<211> 173

<212> DNA

<213> Homo sapiens

<400> 1216

gaattcgcg cgcgctcgac gtaatttact aaggtttgaa atggtattct aacagtgagt 60
ccattgtctt gaggattaat ctgatttata agtaatactg atagacatat ttctgtacat 120
ctgagcagaa ataaatgcat gttcttagca tatgtaatat aaaaactctc gag 173

<210> 1217

<211> 287

<212> DNA

<213> Homo sapiens

<400> 1217

gaattcgcg cgcgctcgac gaacggtaat tacattgaga tttttaaaaa tatataaatg 60
cttaaaatta cagaagtaat aaaaagaatg gttttagaca aatcttatgg aaagtttttt 120
attttattct tttataatta tatttatgga tatttgtctt tattagtgtg gtaatatatt 180
ttataacgct cataatttga actttcaggc taatgtacta taaatatttg cattacgcat 240
tactaccatc ccaaatgtac caaaacacgt ttagagagaa cctcgag 287

<210> 1218

<211> 327

<212> DNA

<213> Homo sapiens

<400> 1218

gaattcgcg cgcgctcgac cgatcttcat gaatgcaata tttatgatgt gaaaaatgac 60
acaggattcc aggaaggcta tccttaccct tatccccata cctgtactt actggacaaa 120
gccaatctac gaccacaccg ccttcaacca gatcagctgc gggccaagat gatcctgttt 180
gcttttggca gtgccctggc tcagggccgg ctcctctatg ggaatgatgc caaggtcttg 240
gagcagcccg tgggtgggca gagcgtgggc acggatggac gtgtcttcca ttctctagtg 300
tttcaactga atatcacaga cctcgag 327

<210> 1219

<211> 335

<212> DNA

<213> Homo sapiens

<400> 1219

gaattcgcg cgcgctcgac ccttgaggtg attcatcttc caggctctcc tcccatcaag 60

tctctctccc ctacgcctct gggtccttaa tggcagcagc cgccgctacc aagatccttc 120
 tgtgectccc gcttctgctc ctgctgtccg gctgggtccc ggctgggcga gccgaccctc 180
 actctctttg ctatgacatc accgtcatcc ctaagttcag acctggacca cgggtggtgtg 240
 cggttcaagg ccagggtgat gaaaagactt tcttctacta tgactgtggc aacaagacag 300
 tcacacctgt cagtcacctg gagaagaaac tgcag 335

<210> 1220

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1220

gaattcgccg ccgcgtcgac cttgatttat aactaaaata ttttaacata cgggtgtgctg 60
 gactccattt gtactcttac ccagggtctg caaatgttag gagctggcct gaccaaggga 120
 ataaagatta cgaaaatgtt cactttattt tattttattt ttttgagaca 180
 gcgtctcgct ctgtcgcca ggctggaaag cagtggcaca atctcgag 228

<210> 1221

<211> 270

<212> DNA

<213> Homo sapiens

<400> 1221

gaattcgccg ccgcgtcgac gtggtttaag acaaaaacac ataaacaagt tcagacaact 60
 gattgtatga ttctgggaat tctttgcttt ccttcccttc tccctcgcca ccacctcttc 120
 tccccaggcc tccctgtcgg gcattggggg gaggttggag ctacagcatc tgaggaaatg 180
 gtcaagacag cccctccgct ccgcgtcgca cggccagccg cctttgtccg ggaggacaga 240
 cagaaacgca gcaaggcaca cactctcgag 270

<210> 1222

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1222

gaattcgccg ccgcgtcgac catcagcccg ccaagatggc gatgcaagcg gccagagggg 60
 cgaacattcg acttccacct gaagtaaac ggatattgta tataagaaat ttgccatata 120
 aatcacagc tgaagaaatg tatgatata ttgggaaata tggacctatt cgtcaaatca 180
 gagtggggaa cacaccaaca actcgag 207

<210> 1223

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1223

gaattcgccg ccgcgtcgac ctctttgagc ccaactgggtc atatgcgtgt caccacacgt 60
 gaactagtgt ggtggctgcc tgcggacacc ctctgtttct gaggcctggg cctgtgttct 120
 tctcagacac tcccagactg aggggtgggt tgtggcgggt ggcaggggtg ctgtggagac 180
 tgggtgatctg gagcctgggt ctggcactg gcctgagttt ccgtgggcag ctggcgggga 240
 cctgtgctgc tgctgctgac tgtgggtggg cgggcggcgc ctgggagtgg ctcttgctca 300
 ggaattgata ggaaccctaa cgactaggat acccccagac tgcag 345

<210> 1224

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1224

gaattcgccg ccgcgtcgac gctgattgag cctcttagat ctgtaggtta atatttttca 60

tcaaatgttg aaaatgcttg gccactatctt attcaaaatt tctgccccag tctctctcct 120
ctgcttcttg gactcaggtt atatacgtaa gaacactgaa tgttgtctac aggtcgtgga 180
ggctttgtac tcccatccac tegag 205

<210> 1225
<211> 534
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (171)

<220>
<221> unsure
<222> (173)

<220>
<221> unsure
<222> (175)

<400> 1225
gaattcgagg cgcgctcgac gactcctgtg aggatgcagc actccctggc aggtcagacc 60
tatgcccgtg ccctcatcca gccagacctg cgggtgagagg aggcctgcca gcagatggca 120
gatgccttgc agtacctgca gaaggtctct ggagacatct tcagcaggtg ntntnccagt 180
gccaaagtacc ctgctccaga gcgcctgcag gaatatggct ccattctcac gggcgcccag 240
gaccttgccc tgcagagacg ccccgccac aggatccaga gcaagcaccg cccctggac 300
gagcgggccc tgcaggtccc tgagaactac ttctatgtgc cagacctggg ccaggtgctt 360
gagattgatg ttccatccca cctgcctgac ctgcccggca ttgccaacga cctcatgtac 420
attgccgacc tgggccccgg cattgcccc tctgcccctg gcaccattcc agaactgccc 480
accttccaca ctgaggtagc cgagcctctc aagacctaca aaatggggct cgag 534

<210> 1226
<211> 284
<212> DNA
<213> Homo sapiens

<400> 1226
gaattcgagg cgcgctcgac cttaatacag acgtaattac ctgttattaa aatattagga 60
aaatgaacat aagaaaaacg ttgagatcac tctactctt gatgttgggc gtgggagggg 120
tgccagccgt cattccttgg ccggctccct tgctcccgtg gaggaggggt gactccacc 180
acctccccgg cgtgggtctc ttgagttcct cccggtttcc ccattcgga cctcactgtg 240
atggaggtg tctctgcaag aagcatttcc tggttctccc tata 284

<210> 1227
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1227
gaattcgagg cgcgctcgac gtgcgtgctc cttggtttgt tccacctgcc tectcgatc 60
ttcaatggca ctctccaact gccttgccag ggtccacat tcccggtttt tctctccag 120
ccgcagctgg gactggtgga ttgctctctc cctcttggca atcacctgta ggaactcgat 180
attctgggca ctggtgcct ccagtttct ctccagtcca tccaccttcg ctcgag 236

<210> 1228
<211> 161
<212> DNA
<213> Homo sapiens

<400> 1228
 gaattcgcgg ccgcgtcgac atttttgggtg caagcctggg tegtcttttc tatgcacatg 60
 gggcagctat tttagaaaca cttggagtgc tttgtatgta gtcccgcatc ccatcttttt 120
 catttgacat cacgtggtgg gaatttcac aacatctcga g 161

<210> 1229
 <211> 237
 <212> DNA
 <213> Homo sapiens

<400> 1229
 gaattcgcgg ccgcgtcgac gaaaaataat tagtggtata gtcttaagat ttgttttcta 60
 aagttgatac tgtgggttat ttttgaac agcctgatgt ttgggacctt ttttctcaa 120
 aataaacaag tccttattaa accaggaatt tggagaaaaa aaaaaccctg gttttttatt 180
 tttgtatttt attattgttt acttcaaact ttgttttaca gcgtcccca gctcgag 237

<210> 1230
 <211> 153
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (7)
 <220>
 <221> unsure
 <222> (14)
 <220>
 <221> unsure
 <222> (104)

<400> 1230
 gaattcncgg ccgngtcgac ccaagatccc agtcacaatt atcaccgggt atttaggtgc 60
 tgggaagaca acacttctga actatatattt gacagagcaa catngtaaaa gagtagcggg 120
 cattttaaat gaattcggg agggcaactc gag 153

<210> 1231
 <211> 217
 <212> DNA
 <213> Homo sapiens

<400> 1231
 gaattcgcgg ccgcgtcgac atttgaatac catattattt ctttctattt gggtaatgat 60
 cgggttaata ggatttctta cttacatagt aggtgtggaa aagggtgggtt ttaacttattt 120
 attttttttt agacagtctt actctgtcac tcaggctgga gtacagtggc gtgacctcag 180
 ctcactgcaa cctccacctc ccgggttcaa gctcgag 217

<210> 1232
 <211> 201
 <212> DNA
 <213> Homo sapiens

<400> 1232
 gaattcgcgg ccgcgtcgac cggaatctcc tctgtgaatt ccacctgcct agttctcccc 60
 tttcatctc tctctcttc cactcatca aagaggaaaa gctctttgtt caaaagggaag 120
 agaaaacgta aagcatctta ttttcttta aaagaatttt aaaccatgaa aaagatattt 180
 ttaaagaaat tcacgctcga g 201

<210> 1233
<211> 160
<212> DNA
<213> Homo sapiens

<400> 1233
gaattcggcc aaagaggcct agagcttagt gtgtaaaatg ttgaggctct tcgttcaggt 60
catttctctg acagggacaa gactgtcgtt tcagcagctg cagcgaagg ttggtgatct 120
tcattctcag gcaggtctag aattcgaggt tctccctata 160

<210> 1234
<211> 330
<212> DNA
<213> Homo sapiens

<400> 1234
gaattcggcc aaagaggcct acttttggtc catgtaagt ctaccctgtg ctgggggagg 60
agtcattggt tatttgaaa tgtcagttgc aatcatggtt ctgtcatttg actgcacagt 120
atcagaggag cctgttaacc tctctgtgcc ttagtttctt agcccatgaa agagatcatt 180
gcctgaccca gggactacct caagggtctt tgatgaggac aagtgcaggt aggaagatgc 240
aagagccttt agtaccagg ttctcaacac tgactacatg ctggaatgac tgtgaagctt 300
ttaaaaaatg ttagtgccta cttcctcgag 330

<210> 1235
<211> 493
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (15)

<220>
<221> unsure
<222> (107)

<400> 1235
gaattcggcc aaagaggcct agttgaagac gacaccacgg ctttgatgga atatcagata 60
ttgaaaatgt ctctctgctt gttcattcct ctgtttctca cactgngta ttttatgcat 120
ttgtctcttc caatgtatat gcacagagag gcacaggcat gtggactgtt caggcagaaa 180
ctgtcttaca ttaccatctg gactgcaaga gaattattata catttaaacc tgtcttataa 240
ccactttact gatctgcata accagttaac ccaatatacc aatctgagga ccctggacat 300
ttcaacaac aggcttgaaa gcttgctgc tcactacct cggctctctgt ggaacatgtc 360
tgctgctaac aacaacatta aacttcttga caaatctgat actgcttacc agtggaatct 420
taaatactct gatgtttcta agaacatgct ggaaaagggt gtcttcatta aaaatacact 480
aagaagtctc gag 493

<210> 1236
<211> 381
<212> DNA
<213> Homo sapiens

<400> 1236
gaattcggcc aaagaggcct agataaatct tcattcatgg ggctctcctg tgtattgcag 60
gatagaataa agagtctgac tctgtttttt atcattgacc accgacaacg ttccagtccc 120
accacctctt atttccctct tgccctcat ctgtgcaagc cttaactaag aaagcttgaa 180
ccatctctct cttggtccca gggggaagct caaaccaagc aaacacaggt ccatgggtgg 240
gaatcttca cctagctcac ttcttaacca taataaaaac ccaagccaca ttcagactga 300
cttgggtctc tgccttgcat tctccagaaa gccttattat gtgagtaata aacctttgca 360
taccctctgg ttctccctat a 381

<210> 1237
<211> 575
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (143)

<220>
<221> unsure
<222> (440)

<400> 1237
gaattcggcc aaagaggcct agggcctgaa ttatttaatt tgatccattt atttaattaa 60
aaaaaaaaag aaggggaaag aatcatggc caaaaaata ttatttaacc cccacccac 120
ccccaagct ctagccattc atntgagcat caccacatc ccactcattg cctgatattc 180
ggatggtggc atactctgcc ccaggaaaac tgcctgaagg cacgggggca atgggtgcc 240
attttagctc tcagcaggtt agtcaaccag acaaactggt gggctaaagt ccagaaattc 300
tttccagggt ttctgctcat tggctgagca catacaact gtcataagcc tgtaaaattt 360
aaggggagtt ggggtggggc gtaagagcaa aaggacagca ggagaagaga aattacgggt 420
cacccaagtt tttcctgggn tagtggctct ggatatagat ttaagagag gtcagagtaa 480
atggactcca ggtttcttat caaagaaaac tatccctcaa tgaggagctg agatgtgcc 540
tgcaagagag ttcttacctg caggttctcc ctata 575

<210> 1238
<211> 454
<212> DNA
<213> Homo sapiens

<400> 1238
gaattcggcc ttcattgcct aatcttggtg cactaattaa ggtcttctt tctagaacca 60
aagaactaaa actttcagca gaatgtcaga accacatctt catttggcag acacacaatg 120
ctttgtttat ttttgcgtg ttgctgaaag tggtcatctg tcagatgtca gaggaggaat 180
tacaacttca ttttacttat gaagaaaaat ctctggcaa ttacagttct gactcagaag 240
atcttttga agaattgctg tgctgttga tgcagttgat cactgatatt ccactcttag 300
atattacata tgaaatatca gtagaagcta tatcaaat ggttgtttc ctttctgccc 360
aactcttcca caaagaagtt ttgcgacaga gcatcagcca caagtattg atgcgaggtc 420
catgtcttcc atacaccagc aatttctccc tata 454

<210> 1239
<211> 356
<212> DNA
<213> Homo sapiens

<400> 1239
gaattcggcc aaagaggcct acagacyggc acagtggcgg cygcgccatg gcagggcttg 60
caggatccct gctgccttgg tgatccggg ctgacagcca gagagcacag cggtcagct 120
cctggagagt gagggttgaa gaaagcggag ggcagccgct tgcgccgct ggctccatt 180
aggtcggttc ctgcagcggg gcccggcagc cttggtgaag gccctgccg gcagagatca 240
tgtattgcct ccagtggctg ctgcccgctc tctcatccc caagccctc aaccccgccc 300
tgtggttcag ccactccatg ttcattgggt tctacctgct caacgttctc cctata 356

<210> 1240
<211> 419
<212> DNA
<213> Homo sapiens

<400> 1240
gaattcggcc aaagaggcct acctggcccg tgtggtggag ggctggaacc ggcagagggc 60

tgagcggaca gaggttctca ggggacttca agaggaacac caggcagcag agctcaccag 120
 aagcaagcag caggagacag taacccgcct ggaacaaagc ctttctgagg ccatggaggc 180
 cctgaatcgt gagcaggaaa gtgccagact gcagcaacgg gaaagagaga cactggagga 240
 ggaaaggcaa gctctgactc tgaggttgga ggcagaacag cagcgggtgct gtgtcctgca 300
 ggaagagcgg gatgcagctc gggctgggca actgagtgag catcgagagt tggagactct 360
 tcgggctgcc ctagaagaag aacgacaaac gctcgaggca ggtctaggtt ctccctata 419

<210> 1241

<211> 696

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (16)

<220>

<221> unsure

<222> (18)

<220>

<221> unsure

<222> (108)

<220>

<221> unsure

<222> (112)

<220>

<221> unsure

<222> (133)

<400> 1241

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 tactattcaa ctaagacaac taagaaaaat atattccaat aaaaaatnta anattacatt 120
 atgagggtga acntgactat ttaacaatc tgtacttta ttaatttaatt aagaaccac 180
 attagtaaaa aaaattttta aatccagatt agtattaggg ctcttttaga atttgtctag 240
 caggttttcc agtttccacc agaaaacat aaaaatactt atctattggg ttatcctgct 300
 agacaaaaat cttagaaagc tctaacatta atctagagtt tttaaaaggg caaattgtag 360
 aatctaaaga gcagggtatct gaatatgtct tctattcatg tgaatggcag gtgtgtatgg 420
 caaacttttc tcttctccag gtgttttgc ctgatcaacc cttgttttcc ttatgggcaa 480
 atcagcatct tcagcaggca ctctgcacag aatcattggt ttcagaacat gatgccctgt 540
 ttattcaaaa gaagagtctc attcagagaa acactaataa ttttggctaa atagctaata 600
 ataattaact taaaaatatt tagttgtgac ttttatttaa acattaaaaa agagttaaag 660
 caacatatga atatggtaaa aaatgttctc cctata 696

<210> 1242

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1242

gaagctatca atttggatac cagtctgga tctgtctac ctcccttcac tcacaactga 60
 cttggaacca ataaaggagg gagtgggaat gcctatcttc cctctcaagt ttctccagac 120
 ttactgcag cagcatgtgt cgctcctggc cctgtgtgc catccctctg cctcctcacc 180
 acatctctca ctcatagact cagggtctcc ctctggctcag tactcccatg actccatgca 240
 cctcgag 247

<210> 1243

<211> 349

<212> DNA

<213> Homo sapiens

<400> 1243

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ggaatgtaag ctctatgagg gcaaggactc ttgtcttgtt tactgctgtg ttcttctagc 60
ataaacacac acacccctt agaacaattc tggatacaca atagaaattc agcaaatgtt 120
tgggtgaatg aaatggccct aaaatactat tttaaaactt gttttcttcc caggttatat 180
tttcttattt aatgtgtgta aaaatgtggg ggtatgaagt tttttgggtt taaaaccttc 240
aatagtgaag ttttgtgggc acattgtatt cataagagct gttaattcta gccataactt 300
taaataaatg tattgtgtgc ttgtgtacat gactatctgt aaactcgag 349
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<210> 1244

<211> 251

<212> DNA

<213> Homo sapiens

<400> 1244

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ggagcccacc gagaggcgcc tgcaggatga aagctctctg tctcctctc ctccctgtcc 60
tggggctgtt ggtgtctagc aagaccctgt gctccatgga agaagccatc aatgagagga 120
tccaggaggt cgccggctcc ctaatattta gggcaataag cagcattggc ctggagtgcc 180
agagcgtcac ctccaggggg gacctggcta cttgcccccg aggcttcgcc gtcaccggct 240
gcaaaactga g 251
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<210> 1245

<211> 528

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (89)

<400> 1245

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gcttgccat ggtcgcttcc ttttttccaa tctctgtggc agtttttgcc ctaataaccc 60
tgcaggttgg tactcaggac agtttttatng ctgcagtgtg tgaacatgct gtcattttgc 120
caaataagaa cagaaacacc agttttctcag gaggatgcct tgaatctcat gaacgagaat 180
atagacattc tggagacagc gatcaagcag gcagctgagc aggggtgctcg aatcattgtg 240
actccagaag atgcacttta tggatggaaa ttaccaggg aaactgtttt cccttatctg 300
gaggatatcc cagaccctca ggtgaactgg attccgtgtc aagaccccca cagatttggg 360
cacacaccag tacaagcaag actcagctgc ctggccaagg acaactctat ctatgtcttg 420
gcaaatattg gggacaaaaa gccatgtaat tcccgtagt ccacatgtcc tccaatggc 480
tactttcaat acaataccaa tgtgtgtgat aatacagtat tctctgag 528
```

<210> 1246

<211> 257

<212> DNA

<213> Homo sapiens

<400> 1246

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gcaagaacat gaaacatctg tggttcgtcc ttctcctggg ggcagctccc agatgggtcc 60
tgtcccaggt gcagctgcag gagtcgggcc caggactggg gaggccttcg gagaccctgt 120
ccctcacctg cgctgtctct ggtgacccca tcagtctcta ttctggagc tggatccggc 180
aggcccccag gaagggaactg gagtggattg gcactatcta taccactggg aatatcaacc 240
acaatccctc cctcgag 257
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<210> 1247

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1247

gaattcgcgg ccgcgtcgac gtaagcaata tttagttaa aggcatttac aagtcata 60
acttaatcat tttaaatgaa tgggtggaat acaagcagct tttctttttt ttttaatttta 120
tttctgttta gtatttctga ttacgtaaca ggaagtctcg ag 162

<210> 1248

<211> 234

<212> DNA

<213> Homo sapiens

<400> 1248

gaattcgcgg ccgcgtcgac ccagcatttt gttcctttct attcaccgc tgctcagtaa 60
caacctacac ttcacttttt gatgccattg tcattcactc attcattcat tatttgc 120
ttcattttgt tcaacaatga aaccaatgct caagcagatg gaggtggctg ggtgcagtgg 180
ctcacacctg taatcccaac cctttgggag ggcgaggtgg gcagatcact cgag 234

<210> 1249

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1249

gaattcgcgg ccgcgtcgac tttccctttt atgtgtaatc ctttgttttc ccggagtcac 60
tacgtcttag tgtcttgttt gctcagtttc ctatgtatct atcacaaatt cagcccagac 120
cctgatagaa gtgtgaatct caacacattc ctcgag 156

<210> 1250

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1250

gaattcgcgg ccgcgtcgac agaacagtca gtttaccaag gaaggccatt atctttgact 60
tgcaaaagctt ttacagccaa acattgtttg cttacagttc ttttaatacaa atgaagacct 120
taatggtaag aagagtccta ttactactcc ctttgtacat ggaggtcacc ccaataaaga 180
aaggacgatg tcacgtctc gag 203

<210> 1251

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1251

gaattcgcgg ccgcgtcgac gagaactgct gctttgtctt cctgtgttag tgagaccagt 60
tgtgtgttat cagatagtct agactttcaa cagcagttat aagtgcacca gttttctcct 120
tactggttat tccttagagt ctaaggtggt gtattaataa atgaggtggc tcgag 175

<210> 1252

<211> 129

<212> DNA

<213> Homo sapiens

<400> 1252

gaattcgcgg ccgcgtcgac cctcgattga attctagacc tgcctcctcc cagcctttgt 60
tttattatca tccattttac atcatcatat gcgataaacc ccaaaatgca ttgtcactac 120
ttactcgag 129

<210> 1253

<211> 178

<212> DNA

<213> Homo sapiens

<400> 1253

gaattcgcgg ccgcgtcgac aaaaaagaga aactacttta ttgatgtttt ttctcctga 60
 gccctgctg gtcttattga atgtgtcacc ttgtattata attgttttta ttgtcactg 120
 ttgtcatact gctactctt taccctcttc ccacatacat acacaaatgc tactcgag 178

<210> 1254

<211> 456

<212> DNA

<213> Homo sapiens

<400> 1254

gaattcgcgg ccgcgtcgac gcttcggcga tgggctcgtc actcgggctg taatactgct 60
 ccagggggca gttacaggaa ggtaaccatt tacagccaga aaagggttaa tatactcttt 120
 tcattgtttt cagaaaatgt ataaaggctc aatttgtaac agcaagggtt tcaaattaag 180
 acaattcgta tagagtagca attgctgcac gaagtaaagt cttttttttt tttttttaac 240
 atttgcatt taagaaggct gccctgcggt attcataatt cattgtttac cacaagggtg 300
 gttcataaat ttaagcttta aaaacgatct gtaagttgat actttggctc ttggagctt 360
 atttcattaa gaaatcttcc ttgattgacc tcagggcagc tggggcactc caaggggcta 420
 tggcgataaa aagctcaatt ggtaaagaca ctcgag 456

<210> 1255

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1255

gaattcgcgg ccgcgtcgac gtgcctctaa aattaaatat ttgggatctt ttgattagtt 60
 ctggatgcat caaataagca taactaaact attctttttt tgtttgtttt tgagacggag 120
 tcttgctcag tcgcccgggc tgaagtgcct cagctttctg agtacctgtg actacatgtg 180
 tgcaccacca tgcccagttc tcgag 205

<210> 1256

<211> 271

<212> DNA

<213> Homo sapiens

<400> 1256

gaattcgcgg ccgcgtcgac ggaatctagt tgcctaagga taaactgagt ttgacttcat 60
 tagtgcacaa atgataggtt tgtgtagagt tattatagca ttaatcaatt tgatggattg 120
 gaaatatgac agaactgaag cagcatgtaa tattagtgcc tattattctg gaaattatgt 180
 cttcacctac attcatgtgg cagaggagtc atgttgtaca tcaagaaggc agaacttaaa 240
 gaaacaaaca acagagggca tcttactcga g 271

<210> 1257

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1257

gaattcgcgg ccgcgtcgac cttacatttg cttagggttt tccaagatt cataggcctc 60
 ttgtctttat gcatttaata atatcatcta ctgctacaac tttaaccatc ttttcaacac 120
 tgatgattct cctctgctc tgctcttca gtaactgttt tctcttgaa cccagaccca 180
 tatctcttgc tgcttgaag cagtttatcc tgaatccct tgactccaca actggtccac 240
 tcgag 245

<210> 1258

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1258

gaattcgcgg ccgcgtcgac caccatccta ctggagaaag catactttta tgctaagatc 60
 ttactttaag cgttttatgt gaacaaaaga tgtacatata gtaagtatta ctcccgtagt 120
 cctcaaattt actataactt ttgtacttag tatatgtttt atatttgga aacagcacta 180
 cgcttagttt tctgtagtt cctgagtgt gctcgag 217

<210> 1259

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1259

gaattcgcgg ccgcgtcgac atttctgctc attgtttcca ttctgcaccc cattttttct 60
 gtttttttcc tgagattatt aggaatgttt tatcataggg tattattaat tttctcttta 120
 gtggcctctt tatcacattg tcacattatc ctcgag 156

<210> 1260

<211> 432

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (22)

<220>

<221> unsure

<222> (24)

<400> 1260

gaattcgcgg ccgcgtcgac ancagatgg aggatccggc ctcggcctcg ctgtcttctg 60
 cagccgctac tggaaacctc acctcgactc cagcggcccc gacagcacgg aagcagctgg 120
 ataaagaaca ggttagaaag gcagtggaag ctctcttgac gcattgcaag tccaggaaaa 180
 acaattatgg gttgcttttg aatgagaatg aaagtttatt tttaatggtg gtattatgga 240
 aaattccaag taaagaactg agggtcagat tgaccttgcc tcatagtatt cgatcagatt 300
 cagaagatat ctgtttattt acgaaggatg aacccaattc aactcctgaa aagacagaac 360
 agttttatag aaagctttta aacaagcatg gaattaaaac cgtttctcag attatctccc 420
 tccaaactcg ag 432

<210> 1261

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1261

gaattcgcgg ccgcgtcgac ggtaagtac ttggaaagt ggaatagagt aagggggatt 60
 cagaattgtt gaggatagag gttgcaattt aaagtgaggt atactgggtg gagtatcctt 120
 gagagagtga tatttaggaa aaatttaacg gagaagtaac catgttaata actggggcag 180
 ttctcgag 188

<210> 1262

<211> 161

<212> DNA

<213> Homo sapiens

<400> 1262

gaattcgcgg ccgcgtcgac ttaaagtta agtgatacta aattaagtca ctgttccctt 60
 gcttaaaact gttcagtgtt ttccatttca ttgagaataa aattgaagct cttttcatgg 120

tctctaatat tctacataga cttacccttg tatacctega g

161

<210> 1263

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1263

gaattcgcg cgcgctcgac aaataaccct tcaacaagtt aaattgcctc taggatttgc 60
tttctccaga ttaaattatc ccaaagtctt ttcttttttc tcataaaggc cttttcaaaa 120
agaaacattg gttactttta aaattttctt ttctagctct ttataaaact ttattctttt 180
cataaatgta ccachggata ctctctgag 209

<210> 1264

<211> 323

<212> DNA

<213> Homo sapiens

<400> 1264

gaattcgcg cgcgctcgac gagagtggca tgcattgataa aattcaaggc agcagtagac 60
ctctgggaca gtctgtagca gttccctaata ctacctgtat ccatgagcgc agataggagt 120
gaagcctcct aggtctccag tctgcagcat ctctgtcaca tggaaacctg atgggtgcct 180
ctgtgagggg ggccaattat gcacagtgca cactaaacac agatcatttt agccttccta 240
attagccact aataaaaaaga cactgaagta agtatcctga agatcaaaga gagatttcca 300
ccatgcctca ataactactc gag 323

<210> 1265

<211> 220

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (188)

<400> 1265

gaattcgcg cgcgctcgac atttaataata cactcttggg actttacaat cagtcactgc 60
tccctatgga atttcatagc tcacttttat aacagacatt ggtaaaataa gaattctattg 120
ttaaagtact cacttaaaat attttaatac tcattggagt gatttttgct agcaaagctt 180
aaaaattnac ataatgcttt gtttcacctt gatcctcgag 220

<210> 1266

<211> 289

<212> DNA

<213> Homo sapiens

<400> 1266

gaattcgcg cgcgctcgac cagtataaaa aacagtcctt taattaaact tgtccgaatc 60
ctcctataac ttggtaatat taggcaatat agtctccctt cagtgttcat gagagattgg 120
ctccaggaca cccctcatac caaaatcctt ggatactcaa atcccttata taaaatagtg 180
tattatttgc atataactta tgtaccttct cctgtatact ttaaatcatt tctagattac 240
ttataatatt aatggtaaaa ccacaattac ttctgcacca actctcgag 289

<210> 1267

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1267

gaattcgcg cgcgctcgac tgaatataaa tttttttata gcatgttaat tgcttataca 60

```

aaaaagttaa taaaagatag gttttttttt aagtatatatt ttctaaaaga ggaagattgg 120
gtttttttgt ttgttttgtt ttattttttt tctttttttg agacagggtc tggctctgtc 180
atccaggctg gagtgcagtg gcattatctc agctccctgc aacctccacc tcccagctc 240
gag 243

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<210> 1268
 <211> 152
 <212> DNA
 <213> Homo sapiens

```

<400> 1268
gaattcgcgg ccgcgtcgac gggctccaga aaaccagggg gactcaaac agaatgaaac 60
tgcaaacatt cgttttattt gctattttta aaaatttggg aatatggcgg ggtgcggtgg 120
ctcagcctg taattccagc acittccctg ag 152

```

<210> 1269
 <211> 192
 <212> DNA
 <213> Homo sapiens

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<400> 1269
gaattcgcgg ccgcgtcgac ggttttatga acatttattt agcgtttgta ttgtggttgg 60
ggattgtata ccatgctttt tatttgaatt ttttttttac ttcttttaga gacagggtct 120
cactctgtca cccagtctgg agtgcagtgg tgtaatcata gttcagtcca gtctcgaact 180
cctgggctcg ag 192

```

<210> 1270
 <211> 384
 <212> DNA
 <213> Homo sapiens

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<400> 1270
gaattcgcgg ccgcgtcgac attaagcatg acatatcctt catatgatca ctcattctga 60
gttaattaga aaatacctga gtacacgtgc taaagtcatt tcaactgtaaa aaactgacta 120
tggtttctta agaacatgac actaataaaa aagtggtttt ttccaccgt tgctgattat 180
tagacagtag gaaatagctg ttttcttttag ttttacaaga tgtgacagct ttagtggttag 240
atgtagggaa acatttcaac agccatagca ctatttgggt taccactgat tgcactattt 300
tgttttttta acagttgcaa agctttttta tggcataaaa gtataattga aatctgtggg 360
atttatttac aaacatgtct cgag 384

```

<210> 1271
 <211> 173
 <212> DNA
 <213> Homo sapiens

```

<400> 1271
gaattcgcgg ccgcgtcgac ggtggctgcc cctgtcccag cccgcaacac cccctgctcg 60
ggtcctccc gcccggtgac tcttgggtgg ttgcccagag aggcgcacgg ccgcctgggt 120
cgcgggggag cgaacgggag gccggggaat gcgaaccggc gcaaaactctc gag 173

```

<210> 1272
 <211> 228
 <212> DNA
 <213> Homo sapiens

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<400> 1272
gaattcgcgg ccgcgtcgac caacctcccg ctgtccatgt atttcttctg gctgggaatc 60
ctggccctgt cccacacat cagccccc atgaataagt ttttccagc cagctttcca 120
aatcagcagt accagctgct ctccacacag ggttctgggg aaaacaagga agagatcacc 180
aattatgaat ttgacaccaa ggacctggcg tgcctggggc cactcgag 228

```

<210> 1273
 <211> 407
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (24)

<400> 1273
 gaattcgcgg ccgcgtcgac cgcncattta tgatttggaa caactagggt ttatataaga 60
 tacaaaaatt aaacaaagga cttgtgcatt gcaaaaagct acaaggaggt ccaagcagg 120
 aagttatgca aaacatagca tttgcccctg actgggagtg cagggagat gtggaagagc 180
 agagaggaag agaaggaggc tagggtagg tacctactca agaaggttga aggggaattgt 240
 ggaaggagag gggccggtgt cctgctcctg ctgtcaact ctagaacctt gtggggctgc 300
 tgtgatccca cagagaacgt gaagagggt cccagttccc tatggccagt gccaaagctgc 360
 aagtacatta gggagtatct ccaaggcttg tgggtgggga actcgag 407

<210> 1274
 <211> 171
 <212> DNA
 <213> Homo sapiens

<400> 1274
 gaattcgcgg ccgcgtcgac gagagatttt tacttatata atagtcctag agtttgcagc 60
 tggtaaaacc agaggctaca tccagtatga ctgctaagag acattcttca tccaccaatg 120
 ttgtacatgt atgaaaatgg tgtactgtat actttaacat gcctcctcga g 171

<210> 1275
 <211> 274
 <212> DNA
 <213> Homo sapiens

<400> 1275
 gaattcgcgg ccgcgtcgac cttgaattgc ctttagagca ttgtgtccgt ggtttcaatt 60
 gtatcacaga atgttacaca gactgaagtt aagtgggtac tttttgtcag gggttatctt 120
 atttttctcc attcagttta acatgtgtac tgcaaaagac agtatctttg gaaatgaagg 180
 catagtcttt catttaaatg tgcacagag ggatttcact aatgaaagca ttcaaatcat 240
 gtgcctagtt cttgtttcta gcagcccact cgag 274

<210> 1276
 <211> 163
 <212> DNA
 <213> Homo sapiens

<400> 1276
 gaattcgcgg ccgcgtcgac cctgattcca aaggatatt tctgcgacac ttacaatgaa 60
 attccaacct ggcaccatct ttttcaactgc agaatgcag aagggtggtg catcatgtca 120
 tttcgacatg catttaaatg taatgaaagg cacacagctc gag 163

<210> 1277
 <211> 254
 <212> DNA
 <213> Homo sapiens

<400> 1277
 gaattcgcgg ccgcgtcgac tcttgagata atttaagtta aatctgtatg gtgtgttttt 60
 ttttaaatatt tctgttttat cttttgattg gctgtgttta cagtgaacat ttctctact 120
 ggataactat gtgtaaattg ccattaggga ttataagcc tttaacca gttttaggcc 180
 aggaaatgc cacagagttt gaagttttct cttagggaa gttgttatgt tgctatagta 240

agggagtact cgag

254

<210> 1278

<211> 181

<212> DNA

<213> Homo sapiens

<400> 1278

gaattcgcg cgcgctcgac cgattgaatt ctgacctgc ctcgagtgat ctgcctgcgt 60
tggcctccca aagtgcgtg attacagacg tgagccactg tgcctgtctt gtctctgata 120
tttatatgcc attatgtggc ctctactgcc ttaggattct aatgttcca ctaagctcga 180
g 181

<210> 1279

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1279

gaattcgcg cgcgctcgac ccattccctg tattctagc tggtttttt gttttttct 60
aggtgtttt tggtttttt agcttctaag tgaatcaact aatataattc ttaagagaat 120
tagctgtaaa gatattcata ccattgctct tcagacacat gcagctagtg ctacttgc 179

<210> 1280

<211> 239

<212> DNA

<213> Homo sapiens

<400> 1280

gaattcgcg cgcgctcgac aaacaaacaa aaaaagcatt tcttgagag aagaagcatg 60
tacagatgag caagtggaga ctaaagatgt ttgagtggat gagtagacag gtgaacaggc 120
gggcatttgt ttttattatt gttacttatt tttttttaa tttcttttt ggatgctccc 180
tcacccccct cctccttccc caggcaggta ttctgataga taaaggatgg gtgctcgag 239

<210> 1281

<211> 213

<212> DNA

<213> Homo sapiens

<400> 1281

gaattcgcg cgcgctcgac gatttttaga gctatagaca ttgtttaaga taactaagaa 60
tacttggtta agaagtataa tttgctaact attaaggact ttctttttt aatgtgtac 120
actattcttc ctactctttt ttggttttgg tttgttttg tagagactgt ctcactatgt 180
tgcccaagct ggtctcaaac ccctaatttc gag 213

<210> 1282

<211> 148

<212> DNA

<213> Homo sapiens

<400> 1282

gaattcgcg cgcgctcgac atttggactt gtacctgata agcaagctca ggaattaact 60
tggtagccac cacaaaacct aaagaaagtt aggcttagaa gtgcaactta atcacaattt 120
agattttaac acacacgcac ttctcgag 148

<210> 1283

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1283

gaattcgcgg ccgcgtcgac ggggaatcagg gaaaggctgc ctcttttgta tctcaactgg 60
tattgattat tgctatcaac tatttgggga gaaaaatca aaatgaagcc ctgtcaaatt 120
ttagaagtac tatcttttgt ccttcaaaca ctttgtgatg acaccttaag aaaaacaag 180
ctcgag 186

<210> 1284

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1284

gaattcgcgg ccgcgttgac tgcagttgtc gccaaacttg ggtattcatg gaatttctag 60
taaataaat acctatactt tgatactgaa gactgccaaa tacataggaa ttttcttct 120
taaaaaacag taatgaagac tatactcct tccccagcac tgaatgttt actagcactg 180
ggtgtcacc atgcaactga agaaaatgtg aaatctctcg ag 222

<210> 1285

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1285

gaattcgcgg ccgcgtcgac ggtgtacgga ttttttctc aaattatcta ttttgtgat 60
gttttttcta cccattctgt tgtgtttgct tttattaatc tataatcatca tctgcttcaa 120
tatggaacac cccacaggtg caggtctgag gtgtccctg ttggcagctc cttaaagagaa 180
gcagctcgag 190

<210> 1286

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1286

gaattcgcgg ccgcgtcgac attgtacatg cttctggact tgccttttcc cttagtgtac 60
cttgggggaat ttgccttgat atatggagag atgcagctgc tttgtttcat gttttgcttt 120
tttttttga cagtttgaca tgcgtgtccc aagtgtgttt atttagccga tctcgag 177

<210> 1287

<211> 293

<212> DNA

<213> Homo sapiens

<400> 1287

gaattcgcgg ccgcgtcgac caaaaaaat gctagagtaa gaaatcagag gaatgggaaa 60
atgaggggtg gattaaatga aatacgcata aattactata caaatgcct gcagtgaag 120
cccgttgat ttgttgagat agattgcaa ttttacttta gtcttccag aagtcacggt 180
aaagaagggt acagaagtat tgtgtattca aaatccaaag tccttttggg ataaaagtaa 240
ataggtcatt caggagaagg acatgttttc ttaattctaa aagctgactc gag 293

<210> 1288

<211> 277

<212> DNA

<213> Homo sapiens

<400> 1288

gaattcgcgg ccgcgtcgac ctataattaa gtatgcagtt ctctttttgc tgggtttatt 60
cgtgtgtgtt catcgtgagt aagaagcctg ccttgctgtt cctgggaaga tgccatagtt 120
ttcgttactg gatgtttgga gtagatactg gtctgtgatt ggtggaatgg agaacacacg 180
tgttggtgct tctgggtagc actggtttgc attagtttat gtttccatgc cagagtttgt 240

gtggcggggc gcattgtcac cacagagtgc actcgag

277

<210> 1289

<211> 266

<212> DNA

<213> Homo sapiens

<400> 1289

gaattcgcg ccgcgtcgac aggagctatg cctccaagggt ggctccttac acccatataa 60
 atgtgggatg gaattcgaga ccttagaagg gcccttcgggt gtaaactctg aaggtttagtg 120
 ccagaaggag gtggtcaact tcctaagtgg cctgggggtca agatcatttt cacctagaaa 180
 gacaccagac tatagaaatc taggcaatga caaactgcta ccattttctt catatgattt 240
 tttttcaggc agcttgggga ctcgag 266

<210> 1290

<211> 139

<212> DNA

<213> Homo sapiens

<400> 1290

gaattcgcg ccgcgtcgac caagaattta ttttttttat tttttaaaat taaaaataat 60
 ttatatctcc tctgttgcac gaggattctc atctgtgctt ataattggtta gagattttat 120
 ttgtgtggct atcctcgag 139

<210> 1291

<211> 154

<212> DNA

<213> Homo sapiens

<400> 1291

gaattcgcg ccgcgtcgac gagagagtgt actttatcct cacaagtcta ttagtgcata 60
 ttaaatcata atgaaagcaa tccttggcca ggtgcagtgg ctcatgcctg taatcacagc 120
 actttgggaa gcggaggcag gcagatcact cgag 154

<210> 1292

<211> 269

<212> DNA

<213> Homo sapiens

<400> 1292

gaattcgcg ccgcgtcgac gtaaagtctt attagttaac caggcagggt taaccacgtt 60
 attatagaaa ctctaagagg ttccacatgt gttttttttt tgttttggtt tgtttggttg 120
 ttttgagatg gagtctcgct ctgtcaccca ggtgggagtg caatggcggtc gtcttggttc 180
 cctgctgacct ctgctcccg ggttcaagca gttatcctgc ctcaacctcc caagtagctg 240
 ggattacagg caccgcgcaa ccactcgag 269

<210> 1293

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1293

gaattcgcg ccgcgtcgac gctaattggc gtttgcattt ggtcttctaa acagatcctg 60
 gttacagcca ttttgtgtga ttcaattcgg ggggttaagta atgcaggatt ctgcaaaaca 120
 ggtgtcgccg tccaaatgta ctgtcctggc atagagagca ctgctttgtt ttccactggt 180
 gtagagaaaa ctaggagaaa gtcgag 207

<210> 1294

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1294

gaattcgcgg cgcgctcgac atttcagtgg tatttttatt ttctactccc tattccttta 60
gcttgtttca gatttaaatt gttcctcacc ttctagtatt ttaagggtcaa aggttaggtt 120
attgatttga catccttctt gtttgcaat gtaaatattt acagttataa attttatctt 180
tagatgcacc aaaacaaaat gtattggcaa agagtcatac tcgag 225

<210> 1295

<211> 197

<212> DNA

<213> Homo sapiens

<400> 1295

gaattcgcgg cgcgctcgac taacaatatt gattcttcca atccatgaac atgggatacc 60
tttccatttt ttgtgtgtct tttcatttta ttttatttat ttattttttt gagatgggtt 120
ctagctctgt ccccatgct ggagtccaat ggcattgatc cagctcactg caacctctgc 180
ctcctgggtt gctcgag 197

<210> 1296

<211> 171

<212> DNA

<213> Homo sapiens

<400> 1296

gaattcgcgg cgcgctcgac ctgacttttc tacatatgct ttatcaacct cttaattaaa 60
ccatcattgt ctattttgag agataactgc gctgcttccc attgtgtgtt ttaaatgtta 120
ttgttcagtt tgagtcaaat aaaaggatat ttaatctatg gtggcctcga g 171

<210> 1297

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1297

gaattcgcgg cgcgctcgac cgagttgtgg aattgtcaag gatgtcacac agtggacaga 60
aagtccaagc gagggagggt ctgaccaggt gctgatggag attagtgtg ggtgtctggt 120
atgaggatct actgcactga caagggtgtc ctacagagtg gagtgtgtc atatggcctg 180
ggacgggaga ggccaagca cagcaaggac atcgccgat tcacctttga cgtgtacaag 240
caaaaccctc gag 253

<210> 1298

<211> 170

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (32)

<400> 1298

gaattcgcgg cgcgctcgac ctgcttttta anacaacaaa caagaacaac aacacaaaac 60
tggaatgat ttggagtaat catgcgggca tattgagtct gggtagtgtt tcgctgggtg 120
tagagtgtt gagacttccc gggaggactt ttccgcctc cactctcgag 170

<210> 1299

<211> 185

<212> DNA

<213> Homo sapiens

<400> 1299

gaattcgcgg ccgcgtcgac ccgggattta ggggcaggat aaagattagt aatagctagt 60
 aagggaacaga attcaaatg tggctcttaa ttacaaatc tatagtttta acttcattta 120
 ctgctactag tgcctctgat ggtataactt tcttaaatct ttcagtaggt ccaggtgatc 180
 tcgag 185

<210> 1300

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1300

gaattcgcgg ccgcgtcgac acttagtata actttgcact catttaaat cagtgaatta 60
 ggttttcagt ttctctagaa ggaaaaaagc caactttttg agcctgcctt tgtttctctg 120
 cgtgtaagtg tatgtgtata taagaaatga aaattcattt tctcaccagt ttactagtgt 180
 atgtaagtgg gttcctttta atccatgttt ttgagaatgg acttgggaaa gcaatgggac 240
 tcgag 245

<210> 1301

<211> 358

<212> DNA

<213> Homo sapiens

<400> 1301

gaattcgcgg ccgcgtcgac agtccctggg gtgtggagcc gctagggttt gcacccatga 60
 aacagaaaag ccacaccctc caaggtgttg ctttcatttt gggactgctg caggaggggc 120
 agaggcattg ctgagactgc ctggcaacgg ctgatgcccc aggtaggacc ttttcatttt 180
 caaagtgggt ttctaagtct gcgtccaaca ctgtgtagga aaaaggttgg tgcaaaaata 240
 ttcttggtca tccaccctt aaaatagtta gatgaggcta ttgccttgat gacagctgtc 300
 cacactcctc atgaaattaa cccgtatgcc ggggcatttc caaatgtctg aactcgag 358

<210> 1302

<211> 150

<212> DNA

<213> Homo sapiens

<400> 1302

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 gaaaaatctt taaaaaatt ttagggcaca atgaggcacc acttcctctg ggcaaatgca 120
 ttgtctctc atttagtgga cattctcgag 150

<210> 1303

<211> 200

<212> DNA

<213> Homo sapiens

<400> 1303

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 ggctgctttt ctggctactg ctacccttgt gtcaacttgt atcagcagta ttccaaggaa 120
 gcaaatggca cgttgaaatg aggataattc aaggaaggta tatttacaat gatattagta 180
 ataaagatgc tggactcgag 200

<210> 1304

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1304

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 tagaggtagg atatctagta agagccgtgg tgctcagccc tggctgcaca ttggaactgt 120

ctggagaaca ttaaatggcc cgatgccag gttcaccca gatcaattat atcagcagct 180
cactcgag 188

<210> 1305

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1305

gaattcgcg cgcgctcgac cgcaggattg ggactgatac agaggccgcc acggagcccg 60
ccggagccac cgttcttct gctgccgcgc ctgccgaat cggaaaccgtc gggccgcagc 120
cgccggcaat gccgcgaagg aagaggaatg caggcagtag ttcagatgga accgaagatt 180
ccgatttttc tacagatctc gag 203

<210> 1306

<211> 160

<212> DNA

<213> Homo sapiens

<400> 1306

gaattcgcg cgcgctcgac caacattgaa gaggatcact gcttttcata agtaagttga 60
attttgaggt tcctgttttc ttaaatctgt agaaataaac ttgcatgttt tgtgggttat 120
gttaatttct aagctaattt gttgttgtgg tcagctcgag 160

<210> 1307

<211> 585

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (18)

<220>

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<222> (23)..(24)

<220>

<221> unsure

<222> (277)

<400> 1307

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ttccaaaaat ttcagttcaa atgaatcttt atacacctgc aggtcagaca gcatgccag 180
gaggtccgc aacaggctcc ggtccacggc ctgcgcgc ctctcgct cgatcagcag 240
taggattcca tcaatggttt tactctgaac cattttntca ctaataatat gggttctaaa 300
cagtttcta ccatatccc agatggaggg cagcgtggag ttctgcagca cataggtgcg 360
gtccaagaac aggaagatgc ttctgatcat gatcatttgt ctgcagtggc cctgccagca 420
cgtgttaatc ttctttaaaa ataaaacact atctagttag tcttctctaa acggaaggat 480
ctgtgcctgg acgtggtctt cacaggcctg acgcagttgc ttgtagagca ttggggagac 540
tttgtgagaa cagagatttt ccacagcctg gtagagctcc tcgag 585

<210> 1308

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1308

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ttccagttac acgttttttag atattttgat attgtcctaa aaataacatt gcctctgtac 120
 atcttttttc agctgttttt ctctttattg tttagttttg ccatttgta ttataattta 180
 gttcaggaca caaagatgag ggtaggaga agcctcgag 219

<210> 1309
 <211> 176
 <212> DNA
 <213> Homo sapiens

<400> 1309
 gaattcgcgg ccgcgtcgac cacgttagtg tagacatggc cttgggggct gagcgcagca 60
 gccaggctgc cagggtctggg ggcgggtagg aggcacggta gttggtgggt gggaagaggg 120
 cctgggtggt ggcggtcagt tagcctggct gggtagggt gatgaggta ctcgag 176

<210> 1310
 <211> 182
 <212> DNA
 <213> Homo sapiens

<400> 1310
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 tgcagggtgt cttactgtcc ccagaactac ctgaatcaga ctgctgcccc gcagggtggca 120
 ctggaaataa cctcctgtgg aatgtttctc atgcccctct cttatggcag gacacactcg 180
 ag 182

<210> 1311
 <211> 171
 <212> DNA
 <213> Homo sapiens

<400> 1311
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 ctaggcagtg agggcagcat gttagcagag aggtgaagga tgaagacaga gcaccaaatg 120
 ggcacccgag atgtaaccat ctaggcagtg agggcagcat gttgcctcga g 171

<210> 1312
 <211> 222
 <212> DNA
 <213> Homo sapiens

<400> 1312
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 ccaagattgc tccactgcac tccagcctga gagacagaga ctccatctca aaaaaataaa 120
 gaaaccgcgc ccagcccaga cccctcattc ttaaagaata gtacttctc tctaagtgat 180
 aagatcctga tgaaactgtt aaaattcagg cgagcgctcg ag 222

<210> 1313
 <211> 216
 <212> DNA
 <213> Homo sapiens

<400> 1313
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 tcagggtttg agctagggtg gaggaataat ttggaaggag aagataacaa actgcatttt 120
 agatccactg agatggaagc ctcagaagga catcattgtg aaaatatcca gcaagcccat 180
 ggaaatgtgg agaggtcaga accaaataaa ctcgag 216

<210> 1314
 <211> 251
 <212> DNA

<213> Homo sapiens

<400> 1314

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 tcctgagaac agccaggatt cacagttgaa aaataattta aaaagctctt ctgggggtat 120
 agatttttag ttcaaaaaaa catatcaata ttcagagtta tacagaaact gacagagggtg 180
 ttatttttaa aagattcaga agaattgatg actcatactc ttcaactaga tttcatcacg 240
 ggatgctcga g 251

<210> 1315

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1315

gaattcgcgg ccgcgctcgac attagagaat aaaagggaat gacttaaaat ttttccatgt 60
 atgtattgat ttatagatta tttttctgta cggtttgtaa aatacatgtt tttttctttt 120
 ttttagacag tcttactctg gcacttaggc tggagtgcaa tggcgcaatc tcagctcact 180
 gtaacctcgg ccacctcga g 201

<210> 1316

<211> 328

<212> DNA

<213> Homo sapiens

<400> 1316

gaattcgcgg ccgcgctcgac acctgacgtg gcctctagag aatgttgccc agggcagtag 60
 agcctccctg gtggcactgc tgtcagcacc acctgcaca gcccggcaga acctgcctt 120
 gccctggcca tctctgtctc tgagattcac cacggagggt agcttggtta taggtgagct 180
 gttaagagta ggggtttgtg ttcttggaag ttagggctta ggagccacac atttcttct 240
 tgccagctc ttgcttgctt agaccatttt ctttatcttt ttcaatgaac acttgtaaaa 300
 gtgtgtcctt tcttccatc ctctcgag 328

<210> 1317

<211> 254

<212> DNA

<213> Homo sapiens

<400> 1317

gaattcgcgg ccgcgctcgac caaaaacatt aaaaaacttt cctaagtcac ttagagtgtat 60
 tttaaaactt tttttaact gtatcacact gcttctcgat agttcaagtt aattatctta 120
 tttgtatctc tagacttggc acagtgtctg tgttcccagg tggctgaata ctaaggctaa 180
 atattagctg aatgccttcc atgtgctcaa cctgtctatt gtctagaaaa ctaaaatcta 240
 ggctgggact cgag 254

<210> 1318

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1318

gaattcgcgg ccgcgctcgac tccgtattta gtttcttttt ctctgtgttc aatctctgga 60
 tttgacctc tagtccctt tcagctttct gtttctcatt gtttcttctt ttttcttctt 120
 ccagctgatg ttccacttgt ttctctgtt gtttcaaga ttgatgggtg tcattcagtc 180
 gactgatttt tatggacctc gag 203

<210> 1319

<211> 271

<212> DNA

<213> Homo sapiens

<400> 1319
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 aggttaatttc ctcatatttg tgaatatgga agtgattgaa tgtttctatc ttatttttga 120
 ttctataat aacttcataa gtctctgcac acaaataggg tcagattaag cctcgaactc 180
 tccaaagagt tctcaaaaca cgaagaacaa acttttaagt ctcttgatat tcttcattga 240
 ccatttatat ttagttgctg gtcaactcga g 271

<210> 1320

<211> 576

<212> DNA

<213> Homo sapiens

<400> 1320
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 gcttttcccc tcccggttcc aaccttcacc gggcagtgct gggacacatc agctggcttc 120
 tggagggcac cacatagaag tgc aaagaaa ggaggtacag gcccgagctg tgttctaccc 180
 cctcttaggg ttggaggag ctgtgaacat gtgctatcga accctctaca tccggacagg 240
 agctgacatg gatgtgtgcc ttacaaacta tggcactgt aactacgtgt ccgggaaaca 300
 tgctgcata ttctacgatg agaataccaa acattatgag ctgttaaact acagtgaaga 360
 tgggacaacg gtggacaatg tgctgtattc atgtgacttc tccggagaaga ccccgccaac 420
 cccccaagc agtattgttg ccaaagtga gagtgtcatc aggcgccgcc ggcaccagaa 480
 acaggacgaa gagccaagtg aggaggcagc catgatgagt tcccaggccc aggggccgca 540
 gcgagaccc tgcaattgca aagccagcag ctcgag 576

<210> 1321

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1321
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 tatttaaaaa aacaaaagac tgcagggtgac tcttctcttc aggtcccatc tcgag 115

<210> 1322

<211> 557

<212> DNA

<213> Homo sapiens

<400> 1322
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 gtaagagggg cactcaaaaag tgtatttctg ggtatagttc tgtcttccca gtagggtaga 120
 tgtcaggctc atctgttaat aaaagtcaac accaaaatga tggtaggaag tttgtgggtt 180
 tgggggaaag ttcaaaattg gggctgtagg acatgtaaat catgaagata cgatttttta 240
 aaatagccaa atagtaatat aggtatgcta tggtagagat cttgattgtg catccattaa 300
 tgtatagtgt gcttaaaatg tctataggct aaggaattat tttgactttg atatgtggac 360
 aggaaggagc ctctgaaagt aacttgaaga aattgatatt ttacgttttg tagcatcata 420
 tagtctaatt ggaatggaca gagatgtgag gcagagatat caggaagcca ttacaggagg 480
 ccgggtgtgg tgtggtaaat agtgactgag gcagagagaa cgaaattata ttgtaaagtg 540
 agagacagct actcgag 557

<210> 1323

<211> 376

<212> DNA

<213> Homo sapiens

<400> 1323
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 caagctcacc ctctgtcacc tgctcaacat catgaaggct tccaccactg cccttgctgt 120
 tcttctctgt accatgacac tctgcaacca agtcttctca gcgccatag gagctgacac 180
 ccgactgcc tgctgcttct cctacagccg gaagattcca cgccaattca tegtgtgacta 240

ttttgaaacc agcagccttt gctcccagcc aggtgtcatt tctctgacta agagaaaccg 300
gcagatctgc gctgactcca aagagacctg ggtccaagaa tacatcactg acctggaact 360
gaatgccgta ctcgag 376

<210> 1324

<211> 372

<212> DNA

<213> Homo sapiens

<400> 1324

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gtgtgtgtct acggctactc gctgttcac tatatcccca cagcagtcct gtggatcatt 120
ccccagaggg ttgttcgttg ggtccttgct atgattgcc tgggcgtctc aggtctctgtg 180
tttgtaataga catcttggtc agctgttcgt gaggataacc ggcgtgtcgc cttggccacc 240
attgtgacaa tctgtttgct tcatgtgctg ctctctgtgg gctgcttggc ttacttcttt 300
gatgtccag agatggacca cctcccagca gctataacca ctccaacca gacagtaaca 360
gcggcactcg ag 372

<210> 1325

<211> 234

<212> DNA

<213> Homo sapiens

<400> 1325

gaattcgcgg ctgcgtcgac aggaaggctg ctatagagag aaattaaatt tcacaaaagt 60
ataaaagcaa agactggcta aaatctgcaa ctctcatgagt aagaataaca acaataacc 120
attctataat taactcctcc acagtgaaca atctgtaca catccttga tgaggaatga 180
acctagctta ccacagtga aacctgccac aactgcaagg ccggggttct cgag 234

<210> 1326

<211> 537

<212> DNA

<213> Homo sapiens

<400> 1326

gaattcggcc aaagaggcct aggatctgta atgttgatta gtcttttagcc ataaccacta 60
cactttttaga aagacagaaa aatgtaagaa tttgttttta ccataatgag tcttaagtag 120
gttcatgac tacattgggg cctgggatta tttttttaat ttttaagttg catgagatag 180
cctaataaat ggaggtgggg ccaggcatgg tggctcacac gtgtaatccc aacactttgg 240
gaggctgagg aggaaggata gcttgaggcc aggagtttga gactagactg ggcaacatag 300
caagaccccg tctctacaaa gcacaacgaa aaacaacaaa tggagttgtg ctatgttgta 360
ttgctttgca caaaattagg aacaggtgtt tgacaattga atttgttttc tgtgaattct 420
aacctctaaa ggcattgcta gaggtcaagg accttcctgt gtagttgtg caaaagcaat 480
ctccacagga cagcactgct tccatgcttc atacatcagg aaatgaggcc actcgag 537

<210> 1327

<211> 206

<212> DNA

<213> Homo sapiens

<400> 1327

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ttgaagcatt gtattttggg aaaattcttc tgtaataact ataactttta taaatggta 120
agttatttag aattatctcc agtgcttact tctccttct tctgtataaa tctgctactt 180
caattaagtt ctctccatc ctcgag 206

<210> 1328

<211> 178

<212> DNA

<213> Homo sapiens

<400> 1328

gaattcgcg cgcgctcgac atttgatacc ttgatagcc tttcactaag tattccagcc 60
gccacatggg gtcacccatt gacctggac cactgccttc accacttcat ctcacagaa 120
tcagtgcggg atgttgtgtg tgacaactgt acaaagattg aagccaagag aactcgag 178

<210> 1329

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1329

gaattcgcg cgcgctcgac catgtgggtg gctgtattac tcatgtgtca gatgtaccag 60
atatcatgtt taggtattac tacaatgaa agaatgaatg ccaggagata caagcatttt 120
aaagtcacaa caacgtctat tgaaagccca ttcgtcctcg ag 162

<210> 1330

<211> 223

<212> DNA

<213> Homo sapiens

<400> 1330

gaattcgcg cgcgctcgac gtctctcaaa aaaaaaaaaa aaagatcgtg tgtcacctgc 60
acacaacatt cacaaactaa agccaaattg tatttttaaa atttccttc tcccttctg 120
ctccctgaga ctgttttgat tgacatcttt tgtgttcta tattttccga ggcagtattt 180
tctttgtatg ttaatcatag ttatagtaaa gtcagcactc gag 223

<210> 1331

<211> 234

<212> DNA

<213> Homo sapiens

<400> 1331

gaattcgcg cgcgctcgac gttctctaca acagaagcca agaaggaagc cgtctatctt 60
gtggcgatca tgtataagct ggctcctgc tgtttgcttt tcataggatt cttaaactct 120
ctcttatctc ttcctctcct tgactccagg gaaatctcct ttcaactctc agcacctcat 180
gaagacgcgc gcttaactcc ggaggagcta gaaagagctt cctctctact cgag 234

<210> 1332

<211> 137

<212> DNA

<213> Homo sapiens

<400> 1332

gaattcgcg cgcgctcgac ttgtgcatac tgtaagcaaa ttgcttagct tctctagaca 60
tcaactgtgt tggagatttg cctagcacat ataactaaat ggtgtctcacc tgcactgcac 120
tcacacactt actcgag 137

<210> 1333

<211> 181

<212> DNA

<213> Homo sapiens

<400> 1333

gaattcgcg cgcgctcgac cgagttttctt tctttcagta agacatacca aagtttgtgt 60
aaatcttcat tacttttggt ccttagttgc tgacagggtc atgctgtcc agattttact 120
ttttcttgcc cccagttttt tgggtcatca aaaaattctc gttgatcaga cctgcctcga 180
g 181

<210> 1334

<211> 120

<212> DNA

<213> Homo sapiens

<400> 1334

gaattcgcg cgcgctcgac tgcataatata ccataaacac tgtgaagaag caaccattag 60
gcacaggaat ccagccagat aaattaagta gaaatgctca tctttcattt atgcctcgag 120

<210> 1335

<211> 157

<212> DNA

<213> Homo sapiens

<400> 1335

gaattcgcg cgcgctcgac gtacttgaag attaaaggcc ttactgagga gtatccaacc 60
cttacacct tcttcgaagg agaaataatc agcaaaaaac accctttctt aactcgcaag 120
tgggatgcag atgaagatgt tgatecggaac actcgag 157

<210> 1336

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1336

gaattcgcg cgcgctcgac gtacttgggg gtttcttctt tgettgttt ctctctctt 60
accctacccc ccactcacac acacacacac acacacacac acactttcta taaaacttga 120
aaatagcaaa aacctcaac tgttgtaaat catgcaatta aagttgatta cttataaata 180
tgaacttttg atcactttac tcgag 205

<210> 1337

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1337

gaattcgcg cgcgctcgac caagcttctg ctatagctcc tctcaaaaa catttcacag 60
ctcatcacgg cctgtagaat agagcccaaa ctctttttaa gtggtatacc aagcccttca 120
tgatctactt ccactatcca gcttcattta ccctcgctct tgttctctat ctgctatccc 180
actgcaaacy acatgcagct cccctcgag 209

<210> 1338

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1338

gaattcgcg cgcgctcgac cttttttaag atagaaaaat ttttaggttt ttgttaccaa 60
atctgtcagt cttttacttc attgtatttt tcagttatgg ctagaagac cttttgtacc 120
acagattata tatttatatt ttctactaac tttgtatctt ttttatgttt caaaatttac 180
atttatctgg aatcagtatt gctcgag 207

<210> 1339

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1339

gaattcgcg cgcgctcgac tgattggaaa tcgaactgga aaccggaagg caggagatgt 60
atgtccctt gggatgtatg gggaaatcac acagagctgt tagtacttca gtcattggat 120
ttgctctcat gctatgcata tgggcctcac aactcgag 158

<210> 1340

<211> 194

<212> DNA

<213> Homo sapiens

<400> 1340

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 ctccattctt tctcctttat cttcactctg atttttcttt tgtcattcaa cgcttactcc 120
 cttccccata cctcagtctt ccaggtgaca cctgggctct tttctgctg aacagcatto 180
 cccaccaact cgag 194

<210> 1341

<211> 236

<212> DNA

<213> Homo sapiens

<400> 1341

gaattcgcg cgcgctcgac agtaatccca tgtacttatt tcttaaatac ctagggaagt 60
 cttcttggtg gctcctcttg gccctccctt cttctctccc caaccacca tcttgcgaag 120
 caaggaaatg cctctccctc cacagaggca acggctgcag agggagcact gtggctgcca 180
 tcccagttcc tcttcaaagc caaacagaca cgcgtgactc aaatccaaca ctcgag 236

<210> 1342

<211> 262

<212> DNA

<213> Homo sapiens

<400> 1342

gaattcgcg cgcgctcgac catactgtat tattttgaag cggatcttaa acagtatcta 60
 taagtattta ttcattcata agcatttcag tatttgcttc taaaagataa ggctctcttt 120
 ttaaaatcat tatcacacct aagaaaaagt taataattcc ataatatcaa catatagtca 180
 tatgtttaga ttgccagttg ttccacaat gttatgtgtg tgtatacttt tcagtttatt 240
 tttgactcag gatccctcag ag 262

<210> 1343

<211> 178

<212> DNA

<213> Homo sapiens

<400> 1343

gaattcgcg cgcgctcgac ccctgcctc gaggagatta tagtctattt ggagagatag 60
 atggtcaaca aattattaca taaataattc atacagttgt gataggtact acaaagaaga 120
 cgtataagtt gctatgaaag tttataatag gggaatttta cgtatccttg ggctcgag 178

<210> 1344

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1344

gaattcgcg cgcgctcgac attttcttc cttattttgt tatacatacc cttccctttc 60
 tcctctgcct ttcgtacatt cattctctt cctctaccct ccagcacatc tacttactgg 120
 tgctgtgctg tgtgtcagaa gataaaacag gtgtattatt gtataatgaa ttttgatac 180
 atgtttatga aatggctcga g 201

<210> 1345

<211> 384

<212> DNA

<213> Homo sapiens

<400> 1345

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attgaaacga tctgtgtctc gtgtcaccat ccacacggta gggatcacag ttggtctctg 120
tctctgggag gtctgtgggc tttaaatgag acagtagaga tgaagtgtt agagctgtgc 180
cccggtcatg gccagtgtgc aatgagatgg tctcagagta ttatggctgg agtcaccact 240
tgtattacca ggaagcccag cctctgtgat tacaggattc caactatggt gactctgcac 300
ctcttctttt ttctcttggc ttctcattcg tcttattacc atttctgtaa attaaatcag 360
aacacacagg ggtcgacact cgag 384

<210> 1346

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1346

gaattcgcg cgcgctcgac gaggagagat cgaattcgcc tctgtctctc aggcctctct 60
gtctctgtct tttgtttgga tgccggcgct gctgcctgtg gccctccgcc tttgtgtgct 120
accccgagtc ttgtgacca tggcctctgg aagccctccg acccagccct cgcgggctc 180
ggattccggc tctggctacg ttccgggctc ggtctctgca gcccttgta cttgcccccc 240
ccagctcgag 250

<210> 1347

<211> 328

<212> DNA

<213> Homo sapiens

<400> 1347

gaattcgcg cgcgctcgac ctggtcttcg gcaagtccgc ctacttgttt gtcaagctgt 60
cccgctgtgt ggggaaggtg cgtctgtgtc ttacgcgctt gcccttcacc cactggttct 120
tctctctgtt ggaagaccgc ctgatcgact tcgaggtgcy ctcccagttt gaagggcggc 180
ccatgcccc gctcacctcc atcatcgta accagctcaa gaagatcatc aagcgcaagc 240
acacctacc gaattacaag atcaggttta agccgtttt tccataccag accttgcaag 300
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<210> 1348

<211> 139

<212> DNA

<213> Homo sapiens

<400> 1348

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gttgagatgt ctactcgag 139

<210> 1349

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1349

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agccacatcc atgattgatt gtaaggggat tattataatt gatagcttct ttatcatggg 120
attgctagta tcatttgtac ttgctgtgtc ttttaaagga acagactcac tcgag 175

<210> 1350

<211> 166

<212> DNA

<213> Homo sapiens

<400> 1350

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 aaaaagtctt aaaaattttt aaaggatggg gtcttgctat attgccagg ctggagtga 120
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<210> 1351

<211> 192

<212> DNA

<213> Homo sapiens

<400> 1351

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 actaatcttc ctttcataga acctctattt ttttttttcc taaacttgag ttgagtcct 120
 tggtatggc atcataagg aatggttagc atgtttaaag atattcctct tccaaatccc 180
 agcgaactcg ag 192

<210> 1352

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1352

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 catagctcac tgcagcctca aacctctagg ctcaagcgat cctcgcaact cccaaagccg 180
 tgggattaca ggcataggc acagtgttg gtttattttt gcttctttaa agcatgggtc 240
 ctagagcatg gtccttcccc taaaaatctc gag 273

<210> 1353

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1353

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 acgcgggaac ccaaatccag atttatcccc ggtgttgac tgatgcagct cttgcagatc 180
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<210> 1354

<211> 211

<212> DNA

<213> Homo sapiens

<400> 1354

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 tcccacaaac tttctgggaa gctttaagaa aatgaaatg ctctcttctc acttttgacg 120
 ctgctgtacc ctctctctac ctctgctgac tgcagcaggt cagagtgggt ctgagggcct 180
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<210> 1355

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1355

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 ggtatttttt ttttgagaca gtcttgctct gtcacaggc tggagtgcag tggcgcaatt 180
 tcggctcact gcaacctcca cctcctgggt cactcgag 218

<210> 1356

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1356

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ttactcttac ttgaaacag ctgttttaaa tgactcgtaa tctgcttaaa tctacatgct 120
ttttgtggtt ctcaatccag ttacctacct tccagataat tccctcactg tctgtctctc 180
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<210> 1357

<211> 151

<212> DNA

<213> Homo sapiens

<400> 1357

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<210> 1358

<211> 235

<212> DNA

<213> Homo sapiens

<400> 1358

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gataatctct attttgttgt gcttttttgt aactgtttta aataaatcaa ttgtactgt 120
atatttgtac ttttgtgaga tcttttttgc tgttttacca ttttaagtct ctgtacttgg 180
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<210> 1359

<211> 181

<212> DNA

<213> Homo sapiens

<400> 1359

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tgggctgac atgttgaaga caacttcaga agagctggct tgtccccgtg agcacctcga 180
g 181

<210> 1360

<211> 185

<212> DNA

<213> Homo sapiens

<400> 1360

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acttgccctc agaagcctat cttgggaggc cacacaccag tgtacctaa gttccctgcc 180
tcgag 185

<210> 1361

<211> 278

<212> DNA

<213> Homo sapiens

<400> 1361

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 ttttaagat attaatcca agttttgtt ttggagtttt cttttgttcc cttcattgtt 120
 tctgcctttt gaagtcttcc ttctcttcta ttggcctttt cagtttattc agggagacgc 180
 ttccagccct gtgcagcata ggctgtaatc ctgggagtag ggacaggaaa ggggaatgtg 240
 ttgagagtcc ccaaggccac cctcaggttc agctcgag 278

<210> 1362

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1362

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 gtataccaac acgatgaact atagcatatt tgtatttcta cttttttttt tagctattta 120
 ctgtacttta tgtataaaac aaagtcactt ttctccaagt tgtatttgcct atttttcccc 180
 tatgagaaga tattttgatc tcccaatga actcgag 217

<210> 1363

<211> 283

<212> DNA

<213> Homo sapiens

<400> 1363

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 gattaattct tgatccaggc tcttctattt gcacacaacc tggatcagat tctctctgca 120
 gttgtcagg agccacatgc gatttgctga gcatgtgcac tgggtggacag cgagccttcc 180
 ctctgcaga ggctacaccg cctcccaca ggctgggtgc agaccagagc tgtcacaggc 240
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<210> 1364

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1364

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 tagctttttc ctggaaagcc cgtagaagg tttgggaacg aggggaaagt tctcagaact 120
 gttggctgct cccacccgc ctccegcctc ccccgagggt tatgtcagca gctctgagac 180
 agcagtatca caggccctcg ag 202

<210> 1365

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1365

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 agttgggacc ttttccggga ggcttatgct gccattgaga cttatcacca gacccacca 120
 cccaccttct cttttcgaga aaggatgact cacaagatc ttgtctacct ctggttcctg 180
 tgcagttctg tggcacttgc cctgggtgcc ctaactgtat ggcattgctgt tctcatcagt 240
 cgaggtgaga ctagcatcga aaggcacaca ctcgag 276

<210> 1366

<211> 365

<212> DNA

<213> Homo sapiens

<400> 1366

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 tgtaactgta tcaaaaataa aaagctgtca catattttgt aaatttttac cttgtaaagt 120

cacaaaaata gtttttaaag gaaaaagtac agtattcttt taataaactg gctcacagtc 180
 tggtaggtct acaaccccat agcacaacag gtttatagag atgtatatag aattatagtc 240
 cttatttttt tcctttgcgt gaaacctttt ataacagatt aacaatcaac tgcataaata 300
 ttattaatat tttaaaaaga gtttaagttgt attttgataa ttcacaaact atcatgcacc 360
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<210> 1367

<211> 291

<212> DNA

<213> Homo sapiens

<400> 1367

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 cttcttgagg ggaacatata ttttttcag agcctctgtg tgcggggtta ctgtatactt 120
 cccttgacag tagcaatgct gatttgccgg ctggtacttt tggctgatcc aggacctgta 180
 aacttcattg ttcggctttt tgtggtgatt gtgatgtttg cctggtctat agttgcctcc 240
 acagctttcc ttgctgatag ccagcctcca aaccgcaggg ttctccctat a 291

<210> 1368

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1368

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 gaagaaaaat ctgacatgac ctcatgaatc agaaaaagtg ccaagagcac ctcatgacag 120
 gcgcgcgagaa tggcagaagc tggcccaagg tccagagctg gctgaagatg atgctaattc 180
 cttacataag catattgaag ttgctaattg cccagcctct cattttgaaa caagacctcg 240
 ag 242

<210> 1369

<211> 212

<212> DNA

<213> Homo sapiens

<400> 1369

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 ggagaaggaa ctgcaagcca ccaagtcttc atttttcagg gtttgtaatc ttcccaaagt 120
 tttcttttga aaataggata atgggtggaa ttttcagagt gattacatac ctcaacattt 180
 ttattaacat acaacaatgg gaaagcctcg ag 212

<210> 1370

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1370

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 ccactgcatg aacatctata caattttaaa aatacttcct cataggatgc tttggccttt 120
 catctattta atcatagcta catacctatt tttataagt agcagtacac attcaaaggg 180
 gcactctcgag 190

<210> 1371

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1371

gaattcgcgg ccgcgtcgac ccagccaaga ccaccatgaa gaaagcctat tacctggcat 60
 gtggattttg tcgctggacg tctagagatg tgggcatggc agacaaatct gtagctagt 120

gcggttgga ggaacctgaa aatccacaca cactcgag

158

<210> 1372

<211> 114

<212> DNA

<213> Homo sapiens

<400> 1372

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<210> 1373

<211> 193

<212> DNA

<213> Homo sapiens

<400> 1373

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 tctgtactac ggaggaacag aatccatgga gatccccacc actgacatcc tggagctgct 120
 gtcagctgcc agcctgttcc agctggatgc cctgcagagg cactgcgaga tctgtgtctc 180
 ccataccctc gag 193

<210> 1374

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1374

gaattcgcg cgcgctcgac caaggatcaa gtcacaagg gatctgttag aggtgtcgca 60
 gtggatggat taaaccagtt gacagttaca actggtagtg aaggattact caaattcttg 120
 aactttaaaa acaaaatttt aatccattct gtgagcctca gttcatctcc aaatatcatg 180
 ttgctacata gggacttact cgag 204

<210> 1375

<211> 313

<212> DNA

<213> Homo sapiens

<400> 1375

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 attcattgat gttttccaca tgaatcgata cctctatgac gttgccagat cctgtttctt 180
 tatatccgct attccttctg catttggttag ttggcattct actgtaagga ggtgctttct 240
 attttattca gtgagttgta atccattact tttattattt atttatttta ttttaaattg 300
 cccatttctc gag 313

<210> 1376

<211> 221

<212> DNA

<213> Homo sapiens

<400> 1376

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 gtaaagttag aatccatgag gggagaagaa accctcagga gaggcaggag ctctggcacc 120
 aaccatctct ctgccagaa tctccttcca agttgaagct tcaggagttt gggttcttcc 180
 aggggtacatt attggtccga taagattgga aaacactcga g 221

<210> 1377

<211> 168

<212> DNA

<213> Homo sapiens

<400> 1377

gaattcgcg cgcgctcgac gaaaaggaaa gaaatgaaga gaattcagag acttccatta 60
ttattaatac ctattttatt gattctgttt ctagccctga gtccgctcct aacttgctat 120
aggatctctg gtaaatcatt tctgttaata agcagctgtc acctcgag 168

<210> 1378

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1378

gaattcgcg cgcgctcgac tggatatatt ccagctgtag ttgccagtg tttacttaac 60
acatctacat ttttttcttg tctatttttg tccccttgat aggaaaagct ataattttag 120
gcaggactat acgtcgattt gtacccatgc ttccttctt tcccttgctc atcgctcgag 179

<210> 1379

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1379

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atcgttttcc tacttaaat ttgttttagc taagacttct taggacattt gtaaaagcag 120
gttaaattta ataaggtttc tgatttttt ttgtaaccgg agatagtttt tacaagtga 180
ataacatttc agctaaataa aacatcgcta aataattgat atttgatgaa aatctgctc 240
tgccctcgag 249

<210> 1380

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1380

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atatacacta aaccataaag agtttgcttg ctttatggca atgttgccga agctgttgaa 120
catttagtaa aaatgcaaaa tgttctggca cctttaaaaa catctaaact tgttttgtct 180
tagttcttgc aatgccacc atacacaaaa gtatttaaat atttctctgt gcatgctcac 240
tacttgcctc gag 253

<210> 1381

<211> 142

<212> DNA

<213> Homo sapiens

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gaattcgcg cgcgctcgac ggtgccaagg actactctca atactaaagg ctattttccc 60
tgccattaag ccacagactt cagtcacatc agtctactgc tttctccta aacacatcat 120
gttctttcac atctctctcg ag 142

<210> 1382

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1382

gaattcgcg cgcgctcgac aagacaccag atgaaagtac aaaaactaaa gatcagatcc 60
tgacttcaag aatcaatgca gttagaagag acttggttaga gccttctccc gcagaccaac 120
tcgggaatgg ccacaggagg acagaaagtg aaatgtcagc caggatcgct aaaatgtcct 180

tgagtcctcag cagccccagc cagcaggatc agctcgag

218

<210> 1383

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1383

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cagtgggtatt ggaattatg ccttggctca gcaatgtttc atcaaatcaa tccagtcaga 120
acaaattaat gctgttgcag ggaccaactt gggagtgtta tacctcaca atgaaaacat 180
tgcagctcga g 191

<210> 1384

<211> 231

<212> DNA

<213> Homo sapiens

<400> 1384

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gaggcctgtg caacctgtgc ccagacaggg ccaacaagga gcacatcctg cagcaggag 180
gtgtccact catcatcaac tgcttatcca gccccagtga ggagactcga g 231

<210> 1385

<211> 154

<212> DNA

<213> Homo sapiens

<400> 1385

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tgatttgcca gacatgcac attggctatt gttgtttgt ttttgtttt tttgtttt 120
ttgggttact ttgaaatga gccagaacct cgag 154

<210> 1386

<211> 213

<212> DNA

<213> Homo sapiens

<400> 1386

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atcatcttg tcttggcag cactttgtg gcctatctgc ctgactacag gatgaaagag 120
tgggtccgcc gcgaagctga gaggcttggt aaataccgag aggccaatgg ccttcccatc 180
atggaatcca actgcttcca cccaagctc gag 213

<210> 1387

<211> 187

<212> DNA

<213> Homo sapiens

<400> 1387

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ttggaatacc ttaataata taaaaataat gatagtaaat ctatacttc tgttggccca 180
tctcgag 187

<210> 1388

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1388

gaattcgcgg ccgcgtcgac ctctctgatg accagcccaa gcttccttgc ctttaattcg 60
tcatgcagca ttgcacttaa aagttcaagc ctggagctgg atttccaagt accattctgt 120
tttctcactt ggggaatgca gttatggctg gacttgcaca gcggtcacc ctcgag 177

<210> 1389

<211> 127

<212> DNA

<213> Homo sapiens

<400> 1389

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tttaattatt attattttta acttttggga cacacaaaaa tcagcaattc tcatgaagct 120
cttcgag 127

<210> 1390

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1390

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aaacacataa aaagcctaac ttgaagaatt aaaatttcta ttttttatct gtataacaag 120
tacaaccat caacaatgac aaattttcac agctgcttgt ttattgcttg ttttatatgt 180
ttacatatct caaaatctgt taaaactgca ggtctcgag 219

<210> 1391

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1391

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ttatctgttg ttaagtgaa atgtataatc atttatcact aaattgcaca ttgcctttat 120
ttatttgtgc tctgtttttg gtttacagtg taataatacc tcatttaaaa aataaaaacc 180
gactcgag 188

<210> 1392

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1392

gaattcgcgg ccgcgtcgac gttgaaaaat gttatttttc actcgatgtt caaaatctcc 60
taggaaaagca ggggcaaaag actttttttt tttttttccc tcctcatgct tggctatgca 120
aaagacttta aagagagaaa atgtctcttc ccaactcttc tatatacatg ctgggaaaaa 180
aaagaccgga aggagctcga g 201

<210> 1393

<211> 231

<212> DNA

<213> Homo sapiens

<400> 1393

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cgtggcgccc tgetcaagcc gtggctcttc acggagatca aggagcagcg gcactgggac 120
atctcgtcgt ccgagcgcc tggacatcctg cgggacttca ccaactacgg cctggagcac 180
tggggctcgg acacgcaggg cgtggagaag acccggcgct ttctgctcga g 231

<210> 1394

<211> 128
<212> DNA
<213> Homo sapiens

<400> 1394
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atagtgtatt taaaagttat atgcagcaaa tgtgtagtat tttctcatt tcaaccttca 120
ttctcgag 128

<210> 1395
<211> 199
<212> DNA
<213> Homo sapiens

<400> 1395
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ctgtcagtta ccccatagct ccaggatatta catgttaact gttctcgaca catgtagaca 180
gaaccaatat gatctcgag 199

<210> 1396
<211> 148
<212> DNA
<213> Homo sapiens

<400> 1396
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cacaggcact ataaacattt tttttctact ttttacttgt gtatgcttat cattggaagt 120
aaatataaca gactttgcgg ttctcgag 148

<210> 1397
<211> 252
<212> DNA
<213> Homo sapiens

<400> 1397
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atctggagac aaacctgtgt ctggctcagag ctaccctacg ctatgaactg cctggctgta 180
catgacccat ccaatttcac agctgaacca aacttactta caccacat tagttttaac 240
actacactcg ag 252

<210> 1398
<211> 204
<212> DNA
<213> Homo sapiens

<400> 1398
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctgacctct ctcaacacac 60
tcctcacegt attttttaac ccatttaaaa aaaaaaatct taaagccaaa attagaaaaa 120
taactcccta cttttccaaa gtgaatttcg tagtttaatg ttatcatgca gcttttgagg 180
agtcttttac actgggaact cgag 204

<210> 1399
<211> 393
<212> DNA
<213> Homo sapiens

<400> 1399
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 aggtcagctc ctgctccttg cagcaaccgc ctccgatcac categcctcc atctcttctt 180
 cctgatcgtc cgcgtctctc agcgaggagg cactcctctc gtgggcccgc cctgaggtct 240
 gggccgcccgc tgccacctcc tcctcgtcgt cctctccttc ggccgcccgt ggccgcccgt 300
 ctctctcccc agccggctcc atcgtctccc gcgtcccggg cacactcatg ccccggcagg 360
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<210> 1400

<211> 442

<212> DNA

<213> Homo sapiens

<400> 1400

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 tctccttaat ccacaggagg actgaagatc tctgggattt caaaaggatg tacagcagtg 180
 aagatgcctt gaggtagatg ttcacagagg cagccagctc cttatccagc atggccgctt 240
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 ttgacaggtg gctggcccag gatcaagatt cccctccagg ccacgcctcc acctggggag 360
 gccctcagcg cggccgtagc cgcggtggcc tccataacgg ctgcagtcgt ccccgccctag 420
 agcctggttt tggagcctcg ag 442

<210> 1401

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1401

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 aatatattaa aattcatttt tatctacagt gtggcccttg gtggggaaaa gctccccatt 120
 cctgctctga ggagtgaact ccaatactgg ggcttgccca tgggtgctgc cacaccccag 180
 agagaggcga tgcaagcctg ctcccaggcc tgcctctcct cctcgacaaa ctggccatct 240
 gttcctgggg aaaaagagca gccttctctg atcttctctg ag 282

<210> 1402

<211> 330

<212> DNA

<213> Homo sapiens

<400> 1402

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 cctgcatgag ataatacaga atgtattctg ttctcaagca gtacacgttc tgggcagcag 180
 cttctgctat attaactcct gagtcattct gtttcagttt attcaagtca gaaaaaagat 240
 gtgtggcctc tttaaataaa ggtacagaat gaccaggtag cacctttgct cctcctgact 300
 gaagaaggcg tttgaagcct gcttctcgag 330

<210> 1403

<211> 266

<212> DNA

<213> Homo sapiens

<400> 1403

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 tctcaccogt tttttccgc atggggctat caaccttgct gggctgtggt ggctccccgc 180
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 cttcgttggt ccagagtcc ctcgag 266

<210> 1404

<211> 256
<212> DNA
<213> Homo sapiens

<400> 1404

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gtacctgcct gatttcttcc gggcccccaa ctccaccaac ctcatcagcg actttctcct 120
gctgctgtgc gcctccagc agtggcaggt gttctcagct gagcgacagc aggagtggca 180
gcgcatggct ggcgtcaaca ccgaccgcct ggagcgcgtg cggggggagc ccaaccccg 240
gccaacttt ctcgag 256

<210> 1405

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1405

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gcagtggaa gcgggcgtc ctccagcttc cgagtcagc cagcctgggc gcggggcgcc 180
gccccgaga caccgagga gtccgttctt cctgtgttac gtggactgtg gagctggtct 240
cttgtggctc agcgcctgc ggaggtactc gag 273

<210> 1406

<211> 271

<212> DNA

<213> Homo sapiens

<400> 1406

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ccaacaaatg aaactgttta ccattctcca tgggccttgt cctctctcac ttctgggct 120
ttgcacaagt tatttctct gtataaact tcttccaatc ctacctaact ttgctttccc 180
ctgggggctc ccacagcacc cagtacgat agctcaaagc actgtcatac cttctgtgat 240
ggcctctca gtagaccatg agttctctga g 271

<210> 1407

<211> 395

<212> DNA

<213> Homo sapiens

<400> 1407

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ccacacagaa ggacggctgc agcatgaatg gccatttctg tcaccgttcc atcaagggtg 120
ctgtcactag gccccccct caacaatggc acagaattgt ccacgagcga tgttgcaaaa 180
cggctgatat caggaggtga aaggatcttg cattcgccaa tgaatttgct cacagcttca 240
cattgctctg gcgtgggtg gaggttgca ttgtgggac tgtacaaaat agccacctc 300
ctaaacagt ttaacaggaa gtaggctgac tgctggctt ggggggtctt gcaggccttc 360
agagcagtct taatgcccag tggcttgac tcgag 395

<210> 1408

<211> 306

<212> DNA

<213> Homo sapiens

<400> 1408

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cgcccccg ggcggggcg ggtgcagacc cccaacgcca cctcagaagg ttgccagatc 120
atacaccgc cctgggaagg ggcacatcagg taccggggc tgaactcgga ccaggtgaag 180
gctatcaact tctgtccagt ggactatgag attgagtatg tgtgccggg ggagcgcgag 240
gtgggtgggc ccaagggtcc caagtgcctg gccaacggct cctggacaga tatggacaca 300

ctcgag

306

<210> 1409

<211> 368

<212> DNA

<213> Homo sapiens

<400> 1409

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gcttctctg ggataactgt gatgaaggaa aggaccctgc agtgatcaa agcctcagca 180
tccaacctga cccattgtg gttcctggag atgtagtcgt cagccttgag ggcaagacca 240
gcgttccct cactgctcct cagaagggtg agctcaccgt ggagaaggaa gtggctggct 300
tctgggtcaa gattccttgt gtagaacagc taggcagctg tagctacgag aacatctgtg 360
acctcgag 368

<210> 1410

<211> 340

<212> DNA

<213> Homo sapiens

<400> 1410

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agctcccaag ctgggttccc ggaggcagag tgacaatgca tggctgtgtg ggagccaggc 120
aggcgtgac gtggcagagc tgccagcagg ggccaagag actgagcag gttggtgctc 180
acagtggatc tgagggatgg gcgtgcgtgg cagggccttg gccatggccc ctgaccaacc 240
cctgtgcacc aaacaccaca ctgagctcag aatccgggca gagagggaac cactggtaca 300
gtgaggccaa ggcacacgca gccgggcctg cagactcgag 340

<210> 1411

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1411

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gaaagacgag gaggcaggga gcagacgagg aggtggggag caggcagccc gggcctcaga 120
ggacacatgg cttcccccg ctggcacccc cacatcaggg ccaccagggg actgtcaca 180
cccagggtt gccgctctg gacctggctg tccttggttc tgctgacctc aggagtgacc 240
tgggcttaca gaggtagtgg caaggaggga ctcgag 276

<210> 1412

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1412

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ggctgacctt cgtactgtg ctctgggctt gcctcatctg gacagtgcgc agccgccacc 120
aactggccat gctgtgctg ccctgcatcc tgctgtatgg gatgacgctg tgctgcctac 180
gctacgtgtg ggccatggac ctgcgcctg agctggccac caccctgggc cccgtcagcc 240
tgcgcagct ggggctggag cacaccgct acccctcga g 281

<210> 1413

<211> 450

<212> DNA

<213> Homo sapiens

<400> 1413

gaattcgagg ccgctgcgac ctaaaccgtc gattgaattc tagacctgac ccgttccgct 60

gtgtacaccc tgaacctggc accggcggac ctgatgtatg cctgttcact acccctaact 120
 atctataact acgccagagg ggaccactgg cccttcggag acctcgctg ccgctttgta 180
 cgcttcctct tctatgcca tctacatggc agcctcctgt tctcacctg cattagcttc 240
 cagcgctacc tgggcatctg ccacccctg gcttcctggc acaagcgtgg aggtcgccgt 300
 gctgcttggg tagtgtgtgg agtcgtgtgg ctggctgtga cagccagtg cctgcccacg 360
 gcagtccttg ctgccacagg catccagcgc aaccgcactg tgtgctacga cctgagccca 420
 cccatcctgt ctactcgta cccactcgag 450

<210> 1414

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1414

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 cccaaccccc tcatcaacgt gcgcgaccgg ctcttcacg cgctgttctt caagatggct 120
 gtcacctatt cgcggctctt cccgcccgcc ttcgcgcgtc tcttcagatt cctcgtgctg 180
 ctcaaggccc tgtttgtgct cctcgtcttg gectacatcc acatcgtctt cctccgctcg 240
 cccatcaact gcctggagca tttctgtgac agcggcgccc gcgggagctt cccgggcttg 300
 gccgtggaac cagycagcaa cctggacatg caagatgagc tcgag 345

<210> 1415

<211> 355

<212> DNA

<213> Homo sapiens

<400> 1415

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 ctactccaag gtcattcaga tgttttttcc taaatgcttt attgtcttgt cttttatttt 120
 ttatatctat ggtctatttg gtatggcttc gtgtgtgtgg tgtgaggtag ggattgagat 180
 tctttttttt ccattgggat atctgattga ccagcatca ttttctaaaa gatgccttcc 240
 ctcatcgac tgcggcgctt cctgtgtgct ttgacaggg atgacagggg tgaggatgat 300
 aaagaatagg catagcgtgt ctttctcttg tgagacacag ggactccaac tcgag 355

<210> 1416

<211> 412

<212> DNA

<213> Homo sapiens

<400> 1416

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 tgaacagaga gaatcaggct caaagcaagt ggaagtgggc agagattcca ccaggactgg 120
 tgcaaggcgc agagccagcc agatttgaga agaaggcaaa aagatgctgg ggagcagagc 180
 tgtaatgctg ctgttgctgc tgccctggac agctcagggc agagctgtgc ctgggggcag 240
 cagccctgcc tggactcagt gccagcagct ttcacagaag ctctgcacac tggcctggag 300
 tgcacatcca ctagtgggac acatggatct aagagaagag ggagatgaag agactacaaa 360
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<210> 1417

<211> 110

<212> DNA

<213> Homo sapiens

<400> 1417

gaattcgccc aaagaggcca ttcaaaaagg ggttaagagt taaaatgggt tgtgcagctg 60
 taacactgga gctattttat ctcttaatga cagttaagga gagtctcgag 110

<210> 1418

<211> 105

<212> DNA

<213> Homo sapiens

<400> 1418

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aaaatattta tgcatcataa aggatttttc atatgcgtac tcgag 105

<210> 1419

<211> 103

<212> DNA

<213> Homo sapiens

<400> 1419

gaattcggcc aaagaggcca ttcaagacc tgccctgaga ggtctcgagg caggtctaga 60
attcaatcgc ctgagaaggc caaagaggcc attcgctctc gag 103

<210> 1420

<211> 105

<212> DNA

<213> Homo sapiens

<400> 1420

gaattcggcc aaagaggcca ttcaaaattt gactgtttat aaagaaagt gctttatttc 60
tttaaacatc ttcaaaagat gatcctttct tgtcacattc tcgag 105

<210> 1421

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1421

gaattcggcc aaagaggcca ttcaaaaatg tatggaaatt caactaattt ttgggtgctgt 60
tattctattc ttcaaatcca ctgcataatgt tttttagttc cagtactcga g 111

<210> 1422

<211> 125

<212> DNA

<213> Homo sapiens

<400> 1422

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actagcaagc atatatcaag ggatacatga ctcggttct gtctagtctc aaagccgtac 120
tcgag 125

<210> 1423

<211> 103

<212> DNA

<213> Homo sapiens

<400> 1423

gaattcggcc aaagaggcca ttcaaaaaat ttgaattcag aagataagca ggtaaaattt 60
atcacaagat tgtgtggtaa tgagagtga gttgctctc gag 103

<210> 1424

<211> 126

<212> DNA

<213> Homo sapiens

<400> 1424

gaattcggcc aaagaggcca ttcaaaaatg aaatgcattt ctagtgtgaa cttaattgcc 60
acttgcttg atattatttt ccttagaatt gtggaatag aggagagagg aagggagcaa 120

ctcgag

126

<210> 1425

<211> 141

<212> DNA

<213> Homo sapiens

<400> 1425

gaattcggcc aaagaggcca ttcaaagatt gtaaatagct tacaatttac aaataataaa 60
tatacaatgc tgtttatcat aaaaatccac ttagccaatt ggttcctaca aaatgtttt 120
gttaatatgt gcgaactcga g 141

<210> 1426

<211> 133

<212> DNA

<213> Homo sapiens

<400> 1426

gaattcggcc aaagaggcca ttcaaaaaca ggaatttgag cacaagatga gaaaatgtgt 60
tggccctta gcgctgtgtg gctggatggc ggccacagca cagggggca cctcattccg 120
caggagctc gag 133

<210> 1427

<211> 106

<212> DNA

<213> Homo sapiens

<400> 1427

gaattcggcc aaagaggcca ttcaaagtca gatgaaatc tttttattct caaaattgtt 60
tttcagttcg gtaaatattt tgagtgtgta tgcacgcggt ctcgag 106

<210> 1428

<211> 109

<212> DNA

<213> Homo sapiens

<400> 1428

gaattcggcc aaagaggcca ttcaaaaataa ttggaatata cttttcttaa aaaaaaggaa 60
cagttagttc tcattctaga tgaaagtcc atatatgcat tggctcgag 109

<210> 1429

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1429

gaattcggcc aaagaggcca ttcaataaaa acacagtaag tactcagaaa ctacttgaag 60
agtgcagtta tcagtagaga tgatcgaaac atttgtttt ctagggaata tttttgcctt 120
ttttctcca gaatcctctg gttataatgt gtcactgct aggtcaccag tcataaaaca 180
taaaactcgag 190

<210> 1430

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1430

gaattcggcc aaagaggcca ttcaaaaata atgatatttg gcctctactt tgtcttagct 60
gttaactgt ttttagtatt tttgttaaat atttgcaag ggaaactcga g 111

<210> 1431
<211> 103
<212> DNA
<213> Homo sapiens

<400> 1431
gaattcggcc aaagaggcca ttcaaaaaag agaaggtctc ttccttattg atatcatggt 60
atgcattaat tccatttggt actattgtgc acaggccctc gag 103

<210> 1432
<211> 178
<212> DNA
<213> Homo sapiens

<400> 1432
gaattcggcc aaagaggcca ttcaaaaaag aaagcagctg ggactaatga actttacatt 60
agccatatcc cattatttca gcttaagtca aatgtcgggc ctcattgaggc aactggcttt 120
gacaggagct acgctaatta ccacttacca acctttaatt tctgggcaaa acctcgag 178

<210> 1433
<211> 115
<212> DNA
<213> Homo sapiens

<400> 1433
gaattcggcc aaagaggcca ttcaaaagta ggggtttctc actctgcttt tcttcctgtg 60
gggtctcggg gtgctgtact gttgtccctt catttcgagc aggtatcacc tcgag 115

<210> 1434
<211> 102
<212> DNA
<213> Homo sapiens

<400> 1434
gaattcggcc aaagaggcca ttcaaaaatg cagtatttat tctttgtagg cataatgtgt 60
ttgtcactga caagcattca tgttcatacc actagtctcg ag 102

<210> 1435
<211> 125
<212> DNA
<213> Homo sapiens

<400> 1435
gaattcggcc aaagaggcca ttcaaaaaaa atagaaagta aatagttcta agaattattct 60
ggcataaatt atttttattt agccaataaa atagccctca aatgtatatc tcagttgccc 120
tcgag 125

<210> 1436
<211> 104
<212> DNA
<213> Homo sapiens

<400> 1436
gaattcggcc aaagaggcca ttcaaaaagc attgcttaat agaaagttag tagaacttat 60
attcgatcat gttattgagc acatacttac gggcagttct cgag 104

<210> 1437
<211> 125
<212> DNA
<213> Homo sapiens

<400> 1437

gaattcggcc aaagaggcca ttcaaaagga ggtcaccaag aaacatcagt atgaaattag 60
gaattgttgg ccacctgtat tatctggggg gatcagtcct tgcattatca tggaaacacc 120
tcgag 125

<210> 1438

<211> 206

<212> DNA

<213> Homo sapiens

<400> 1438

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gaatgttttc ctcagaaggc caaagaggcc attcaaaaa gcagaatggt ttcctcagaa 180
ggccaaagag gccattcaaa ctcgag 206

<210> 1439

<211> 104

<212> DNA

<213> Homo sapiens

<400> 1439

gaattcggcc aaagaggcca ttcaaaaaga taaaattaaa aagccagaca tactttctat 60
caagctgcgt aaagagaaac atgaagtaca aatggatcct cgag 104

<210> 1440

<211> 120

<212> DNA

<213> Homo sapiens

<400> 1440

gaattcggcc aaagaggcca ttcaaacctt cagaaggcca aagaggccat tcaaaccttc 60
agaaggccaa agaggccatt caaacctca gaaggccaaa gaggccattc aaacctcgag 120

<210> 1441

<211> 119

<212> DNA

<213> Homo sapiens

<400> 1441

gaattcggcc aaagaggcca ttcaaaaaca tttttaagc caagtttttag gtgtattttt 60
tgaattttg ttataaaccc aattttaag ggcgatgtat gccagcgtt ttactcgag 119

<210> 1442

<211> 123

<212> DNA

<213> Homo sapiens

<400> 1442

gaattcggcc aaagaggcca ttcaaaagta ttttgaactt agtcatcaa aggccataaa 60
taatctgtaa acatgtttta taaaaaaaa atcactaaag ctgatcccaa agagccactc 120
gag 123

<210> 1443

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1443

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ccctgcttctt gcattgcataa aattaataact tcagccctct tccaaagaac tcgag 115

<210> 1444

<211> 128

<212> DNA

<213> Homo sapiens

<400> 1444

gaattcggcc aaagaggcca ttcaaacat tcaaacctca gaaggccaaa gaggccattc 60
aaaccattca aacctcagaa ggccaaagag gccattcaaa aaaaagtaaa acttgctgct 120
gactcgag 128

<210> 1445

<211> 110

<212> DNA

<213> Homo sapiens

<400> 1445

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ttttataat gttaatatc tgttttgct ttataattcc cacactcgag 110

<210> 1446

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1446

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aacgtctagc accacactct cactaagaat ttcactgatg aggcgggtgt ttctcgag 118

<210> 1447

<211> 121

<212> DNA

<213> Homo sapiens

<400> 1447

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caatttcata gtgaaagct gttacaaaat gaaagtttg tgtatgtag gaattctcga 120
g 121

<210> 1448

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1448

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gattaggga acagtatata agaacttact taactcataa taaaactaaa attcaacagg 120
ggagagttat gattttttg ctcgctctcg ag 152

<210> 1449

<211> 129

<212> DNA

<213> Homo sapiens

<400> 1449

gaattcggcc aaagaggcca ttcaaaaaa atgaggattg ccttccttgt atgcgctttt 60
taccttgact acctgaattg caagggtatt ttatatattc atatgttaca aagtcagcaa 120
cgctcgag 129

<210> 1450

<211> 133

<212> DNA

<213> Homo sapiens

<400> 1450

gaattcggcc aaagaggcca ttcaaaaaag agtaggctat aagggaagat tgtcaatatt 60
ttgtggttaag aaaagctaca gtcatttttt ctttgcaactt tggatgctga aatttttccc 120
atggatcctc gag 133

<210> 1451

<211> 101

<212> DNA

<213> Homo sapiens

<400> 1451

gaattcggcc aaagaggcca ttcaaaaatt acgcattttc tttatcccca gaatagacat 60
acataaaaat aatgcatact aagttccttg caattctcga g 101

<210> 1452

<211> 142

<212> DNA

<213> Homo sapiens

<400> 1452

gaattcggcc aaagaggcca ttcaaaagta taaaacaagc aaagaaggga gtgtaatggg 60
agttacagta tcccggttg caatgtgtc tcaactgccaa gctctgtcg aggccctgcaa 120
ttattctgaa gggcgctcg ag 142

<210> 1453

<211> 102

<212> DNA

<213> Homo sapiens

<400> 1453

gaattcggcc aaagaggcca ttcaaacata aacataagca taaacataag aaacacaaaa 60
gaaaagagggt tattgatgct tctgataaag aggggtactcg ag 102

<210> 1454

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1454

gaattcggcc aaagaggcca ttcaaacata atgtcagaat caatttaaac aaattataat 60
taatgtaata tgatttttagg aaagatgaaa cactttatga gagccctcga g 111

<210> 1455

<211> 132

<212> DNA

<213> Homo sapiens

<400> 1455

gaattcggcc aaagaggcca ttcaaaaata aaattattga acagcttagc cctcaagctg 60
ccaccagcag agacatcaac aggaaactag attctgtaaa acgacagaag tataataagg 120
aacatcctcg ag 132

<210> 1456

<211> 136

<212> DNA

<213> Homo sapiens

<400> 1456

gaattcggcc aaagaggcca ttcaaaaat aaagtgactg aactgtcaga tcaacaagat 60
caagctatcg aaacttctat ttggaattct aaagaccatt tacaagtaga aaatgatgct 120
taccctgatt ctcgag 136

<210> 1457

<211> 104

<212> DNA

<213> Homo sapiens

<400> 1457

gaattcggcc aaagaggcca ttcaaaaata tgatcgaaga aataaagacc ccagcctcta 60
cccccggtgc tggaactcct caggcttcac ccatgggtcct cgag 104

<210> 1458

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1458

gaattcggcc aaagaggcca ttcaaaaatc gaaaaggaaa atactttaac gttgaaagag 60
ttggtcagta cttgaaagat gaagatgatg atcttggtgc accccctcga g 111

<210> 1459

<211> 129

<212> DNA

<213> Homo sapiens

<400> 1459

gaattcggcc aaagaggcca ttcaaaaag gaagaaaaaa acagatttac accacagata 60
gtgatgagat ttcacatatt gttaatcgta ttgtcctca gccaaaggat gaaaaaccaa 120
caactcgag 129

<210> 1460

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1460

gaattcggcc aaagaggcca ttcaaaaaa aagaaagtta tttctttgtc ttaaagaatt 60
tttaaaaaat tagtcatgag acttattcat ctttcaggga aactctcga g 111

<210> 1461

<211> 173

<212> DNA

<213> Homo sapiens

<400> 1461

gaattcggcc aaagaggcca ttcaaaaacta aaataaaaca tatgtgtcta tggttttcaa 60
ttggagttagt ctttcttact ttcccccttc cctcttttgg ttctcctaac cagcttagag 120
gacccaaaga gagcttaggg atagacacca gaatactctg tggaggtctc gag 173

<210> 1462

<211> 141

<212> DNA

<213> Homo sapiens

<400> 1462

gaattcggcc aaagaggcca ttcaaaaatc aagagtttga gagcgctcgg ctgaatgaga 60
cactttcatc attttctgat gacaataaga ttacaattag actggggaga gcacttaaaa 120
aaggagaata cagagctcga g 141

<210> 1463

<211> 123

<212> DNA

<213> Homo sapiens

<400> 1463

gaattcggcc aaagaggcca ttctgaggcg gttggtgggt caatggtgaa gatacagtct 60
tttcttaaat cctttctctt gctgaactec tctggtggaa ttgtccatgg caggteactc 120
gag 123

<210> 1464

<211> 105

<212> DNA

<213> Homo sapiens

<400> 1464

gaattcggcc aaagaggcca ttcaaatatg tateggattg ttttaattgt atatattgga 60
ttgtattcga tgttacaaaa ccaatattct atggagtccc tcgag 105

<210> 1465

<211> 117

<212> DNA

<213> Homo sapiens

<400> 1465

gaattcggcc aaagaggcca ttcaaatatg atcacacatt tagaagtaca aattaatcca 60
ttttgcttta tgaattcatt ttacattat ataacttctc ttacattctg tctcgag 117

<210> 1466

<211> 102

<212> DNA

<213> Homo sapiens

<400> 1466

gaattcggcc aaagaggcca ttcaaaagaat tgaacattt taatttcaaa ttcaaataga 60
acatttcaaaa tgatttcatt attattaccc atactcctcg ag 102

<210> 1467

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1467

gaattcggcc aaagaggcca ttcaaaaaaa ttttgcata tacttatggg taatatcttt 60
ttcatatatt atttatcaaa gtatgaagtt gagtattttg cttgtaccac tctcgag 118

<210> 1468

<211> 107

<212> DNA

<213> Homo sapiens

<400> 1468

gaattcggcc aaagaggcca ttcaaaaatc ataaatatag aaacagtagt aatacagctg 60
acattaccat ttaattttat attatgaaag caaatcatct gctcgag 107

<210> 1469

<211> 433
 <212> DNA
 <213> Homo sapiens

<400> 1469
 gaattcgcg cgcgctcgac ccaacccag gttatcttcc cctttgtctt ccagccccc 60
 agaaacagct acgactcaac ctacccaatc atttcatcat cagattgcca ctgtctctag 120
 ttcagggtctc ttgggactgg cactcagaaa tctcataata aatcctcttg aggtctctca 180
 tacactcgctc ttcttccaat cttctttccc tcaaaatctc atattttggt tccacttcac 240
 ccacggtcat tctccatata actcccagga gttaggcaaa aagcccttc cgttcttccg 300
 tatgttaaac ttagaatcac tctgttccct gctctgctt tctatttttt gtttctctcc 360
 atttactagt agcttaacac tttctaacag tggtcttatt attgatacgt atctatctct 420
 tccaaagctc gag 433

<210> 1470
 <211> 158
 <212> DNA
 <213> Homo sapiens

<400> 1470
 gaattcgcg cgcgctcgac ccctgtgtgt ttctgttact tgctagccac aaagtccctg 60
 caaacagaaa ctttagatcc actgcctcct ttactcttcc tctctatagc gctgtgaagc 120
 aaatgtctcg catcatcccc attgcacaca cgctcgag 158

<210> 1471
 <211> 270
 <212> DNA
 <213> Homo sapiens

<400> 1471
 gaattcgcg cgcgctcgac ctaaaattct gatttgcatt gtgggtttta gggttcagat 60
 tagcaagtgg gattgttttt tagcacttaa atccctcact tcatgctctg ttgacacaaa 120
 tctaaagagg cactgggtatg tctaaagagg cactgggtatt gtttattacc tctagtgtga 180
 ttgtgacttg ggattgtaga gaaaaataat ttccctttgt gggatggggg aagaatccca 240
 tgccagtatt catcatatgg gaccctcgag 270

<210> 1472
 <211> 359
 <212> DNA
 <213> Homo sapiens

<400> 1472
 gaattcgcg cgcgctcgac ctaattatgt aattatgtaa gctagctttt catgtttatg 60
 tatgtatggt gtccctctgt gttattttcc tccctcttgg tttttgaatt agtggttaaat 120
 agaatactgt ctagattctt aaaatatctt catttccatc atggttataa caaatttgc 180
 gcatgcccaa actgacaaca gcaatcactg aggggaacagg ttttgaatct ttcttttgtg 240
 ttatgaagtt tategtctct acttgcttga gatttttgtt attttggggg ttggggggtg 300
 ctttttgttt tgtttttgcc aaatgtaaca tgaagcaga tgctgcagct tctctcgag 359

<210> 1473
 <211> 407
 <212> DNA
 <213> Homo sapiens

<400> 1473
 gaattcgcg cgcgctcgac gaaatcatgg actaccagag cagacttaag aatgctggtg 60
 aagagtgcaa gagcctcagg ggccagcttg aggagcaagg ccggcagctg caggctgctg 120
 aggaagctgt ggagaagctg aaggccaccc aagcagacat gggagagaag ctgagctgca 180
 ctagcaacca tcttgcagag tgccaggcgg ccatgtctgag gaaggacaag gagggggctg 240
 ccctgcgtga agacctagaa aggaccaga aggaactcga aaaagccaca acaaaaatcc 300

aagagtatta caacaaactc tgccaggagg tgacaaatcg tgagaggaat gaccagaaga 360
 tgcttgctga cctggatgac ctcaacagaa ccaagaagta tctcgag 407

<210> 1474

<211> 521

<212> DNA

<213> Homo sapiens

<400> 1474

gaattcgcgg ccgcgtcgac attgaattct catgcctcac ctctcctcag tagctgggat 60
 tacaggcgtg caccaccaca cctgctaatt tttgtatatt ttttagtaga gacggagttt 120
 tgccgtgttg gccaggcttg tctcaaaactc ctggcatcaa gtaatctgcc tgcctcagct 180
 tcccaaagtg ctgggattac aggcataagc caccgtgcc gccctatttt cggcattttt 240
 atatcctgtt gtatttaggc tctttttgta gacctcctat tctagatct tttaaaaate 300
 caatcccaga gtttgttgtc tttttttctc tctctcattt aatagggtga attttctttt 360
 cctagtttga aatgtacaca ttctattgtg ttccagttta aattttggtc attatcccaa 420
 accaatctat gcttacattt atacgtttgg tttcttttat tgtgttata agtatcttta 480
 tatcactcac tgccttcaac ataaatacct tgacactcga g 521

<210> 1475

<211> 381

<212> DNA

<213> Homo sapiens

<400> 1475

gaattcgcgg ccgcgtcgac agaagttgct ggtcttgaca tgaatcag ccaatttcta 60
 aaaagccttg gccttgaaca ccttcgggat atctttgaaa cagaacagat tacactagat 120
 gtgttggtg atatgggtca tgaagattg aaagaaatag gcatcaatgc atatgggcac 180
 cgccacaaat taatcaaagg agtagaaaga ctcttaggtg gacaacaagg caccaatcct 240
 tatttgactt ttcactgtgt taatcaggga acgattttgc tggatcttgc tccagaagat 300
 aaagaatatc agtcagtgga agaagagatg caaagtacta ttcgagaaca cagagatggt 360
 ggtaatgctg gcggtctcga g 381

<210> 1476

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1476

gaattcgcgg ccgcgtcgac cttaggtcag gttctgtcaa gttaccaaca gaagctactg 60
 attgtaaaat ttcaattaca ctcttattct gtcaagtaaa atggtaggca gtctcgag 118

<210> 1477

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1477

gaattcgcgg ccgcgtcgac tggaaatcata ggatgtggag gatggtactc atacactgtg 60
 tctgcctctg ggtgggggcc acaggactgg ttcagtcctg ctctggatgg agtcagtcag 120
 ttgccagaat gcagaagtcg gaaaaacatc tcaaaagacc agtcttgcca gagctcgag 179

<210> 1478

<211> 279

<212> DNA

<213> Homo sapiens

<400> 1478

gaattcgcgg ccgcgtcgac taggagtgaat tatgtgggtc ctttttggta tgcacaatag 60
 aattgttctc ccaatttttt tttttttgct ctgtcacttc atactctatt ctatttactt 120

ccctttctag ttagtaaggc atgttgggtg aactccccct ttttgcaaa aaggcattta 180
 cctttctctt cccattacc actaccagca caccaatata gattttcccc ctgctcagg 240
 gaggccatga ctggaggagg gggtaaggag cctctcgag 279

<210> 1479

<211> 144

<212> DNA

<213> Homo sapiens

<400> 1479

gaattcgcgg ccgcgtcgac gtcttgggtc agattataaa aattacaatt gattacataa 60
 aacttaatta accttttctt tctctctcat agatactctt catatcaatt tatgtatttc 120
 caagtactat acccattact cgag 144

<210> 1480

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1480

gaattcgcgg ccgcgtcgac gccagcatgg tcaactcttg gcgagagctc tcttctcgtt 60
 atgtaaatgc ccacttcctc atgtcttcac aggaaggaaa ccaacaaata ggtctctctc 120
 tctctctctc tttctctctc ctctctctcc ctctttctct ctctctcccc accatctctc 180
 tcttctccct cctctcccca gccctcgag 209

<210> 1481

<211> 532

<212> DNA

<213> Homo sapiens

<400> 1481

gaattcgcgg aaagaggcct aagtgacttt agtagaagct attgagaaaa gactgatcag 60
 ccctgaactg gcaaatatga tccaaataga tagttcagag ttcagcgatc acagggtcga 120
 gattgaaaag caagaaggga ttgaagtgtg tgcattacaa aatgaatttc taggaaagga 180
 tatgttaatt gcttgaatc agactgctga aatgagtgtt aataaagtag aagagagtga 240
 gagattattt caagtgaaa atcagtctgc acaagaaaag gttaaagtga gagtttctga 300
 tggggagcag gcaaaaaaga gcagggaat ttccttaaag gaatttgggt gcaaggatca 360
 acgtaagcca agaattgtctt cagatgctaa agaatttctc agtatcataa atcctcataa 420
 tcttaaggtt aaatccttgg gccaaagtgc attgacacac ccttactctg aatgtgattt 480
 taaacttaaa gaagtggcta gaaataacat gggaaatgat acaaacctcg ag 532

<210> 1482

<211> 585

<212> DNA

<213> Homo sapiens

<400> 1482

gaattcggcc aaagaggcct agatcagtag cattaacaaa agttgcttta aaagccatta 60
 tgtaaaacaa gacttgaaaa tgagtggagg aattttagcg acactgtctg agcagcagtg 120
 ggaaccatct tcgtttcccc tttgaactcc cagtgggatg ccctaccctg cgccttagg 180
 acccgactg accgtgtaca aaactttacg tgccaaaatt ctgagtgaat ttagctttct 240
 cctcttttt gatgctgtaa tttttgttca tcatgttttg ctgtgatgtt acataggtag 300
 attgtatgt agttttaatg tcacctataa caaaatgtgt ttggtagcag attgtccaga 360
 aagcatttta aatgaagagg tataaacctt taagggccaa aattctgtat attagattac 420
 tcttaacga aaaaccagct gccgtttta tttacacata ttacatacga gtaggcagca 480
 gactttaaaa ataaaaaaa cctaggcatg ttgatgttgc aaaatgctgt ataaagctga 540
 aacctgttca ttcagtgcga ttgtagtcga catgaagctc tcgag 585

<210> 1483

<211> 418

<212> DNA

<213> Homo sapiens

<400> 1483

gaattcggcc aaagaggcct aatttttttt gaggatttgt ttacttggg tgcacattc 60
ataattttta atcctttaag gagaaaaatg tgettattaa atttttggc tctgaatgct 120
accaagtctt agtcatacag aacaatatgc tgcaactgtt tacaattcct aaaactgtaa 180
actctcaag gacttggagg ctaaactga agaataataa attaagttga caatcactgt 240
ctcctgcata acactgactt cacttctctt gagaaatgtg catctgctaa tccatattta 300
ttacttttta ggggtgggtg aaccataaa taagatactg ttctttgaat gccttttagct 360
ggtgttattt accagtaatg cttggagaaa gaatccaaaa ttaccccccac tactcgag 418

<210> 1484

<211> 572

<212> DNA

<213> Homo sapiens

<400> 1484

gaattcggcc aaagaggcct aggtttcctc tttttgaatg catctctgta ggctttgtga 60
tttaggggaag gatctgttaa actttcaagt tcagagaaaa gtttcttaaa ctccccaggg 120
attttctccc aggtctgcga cagtcgactg acagaagcag tgttgagacc catcacaatg 180
gcaaagaaag aattcagggtt tctctgggct ttgcagttag ccgcaatttt gatgaatttt 240
ttcaccagct gcactcgctt gccagctgg ctgcagagca gaatctccgt ggccacccaa 300
agctggacct cattgcatct ctggagcaga aggtctgagat ttgcagtgtg tccccactt 360
ccctgtctgc tgaacgtgaa gtagatcagc tcttgcctgt gaattgaatt gaatagactc 420
caatcaaaat tcattaattc cagagcaaga tccaagtgt tcatcccaa aatcctcctc 480
gacctttgct gtgattcctc attttctgca aatgggttca aagtgtccgc cagggtcttc 540
cggtagacat atattcgacc agatgctcag ag 572

<210> 1485

<211> 451

<212> DNA

<213> Homo sapiens

<400> 1485

gaattcggcc aaagaggcct acttcttccg ggcccacgga aaaggcgggc gtagtgtctt 60
tgcaaccgtc ccaggggccc cccatggagc ccttctgccc ttgggtcca gtgtggcccc 120
tggccctgc tgagcctgtt ttgccatatt tcccttggag gcctcgatct ccgcggtcac 180
ccttctcccc ttcaagata gtgatgttga tctggggcac ggcggtcgcc gggtacatgg 240
aggtaccagg gtcacagcag cgcaagcacc gggaagcag gagccctgg tctgactgg 300
gcctgtatit ttcattgtgt tcttcagccc tctcgcatg gtccggaggg gacggcagct 360
cctcagtcct cctccactcc tctgttccc cctggacatg gggcacgcca ctcaggacca 420
ggccagaggg aaaggcaagg agcaggtcga g 451

<210> 1486

<211> 590

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (69)

<400> 1486

gaattcggcc aaagaggcct aagcaaatgc aaaaactctt tgagagggta ggagggtggg 60
aaggaaacna ccatgtcatt tcagaagtta gtttgtatat attataataa tcttataatt 120
gttctcagaa tcccttaaca gttgtattta acagaaattg tatattgtaa tttaaaataa 180
ttatataact gtatttgaaa taagaattca gacatctgag gttttatttc atttttcaat 240
agcacatatg gaattttgca aagatttaat ctgcccaagg ccgactaaga gacgttgtaa 300
agtatgtatt attcacattt aatagactta cagggataag gcctgtgggg ggtaatccct 360

gctttttgtg tttttttgtg ttgtttgttt gtttgttttt ggggggtttt cttgccttgg 420
 ttgtctggca aggactttgt acatttggga gtttttatga gaaacttaaa tggtatctgg 480
 gcttatatct ggcctctgct ttctccttta attgtaaagt aaaagctata aagcagtatt 540
 tttcttgaca aatggcatat gttttccact tctttgcatg cgtcctcgag 590

<210> 1487

<211> 596

<212> DNA

<213> Homo sapiens

<400> 1487

gaattcggcc aaagaggcct acttttgtct gcctcattct aaaatttaca cagtagacca 60
 ttgtcatccc atgctgtccc acaaatagtt ttttgtttac gatttatgac aggtttatgt 120
 tactttctatt tgaatttcta tatttcccat gtggttttta tgtttaatat taggggagta 180
 gagccagtta acatttaggg agttatctgt ttcatcttgg aggtggccaa tatggggatg 240
 tggaaattttt atacaagtta taagtgtttg gcatagtact tttggtacat tgtggcttca 300
 aaagggccag tgtaaaactg ctcccatgtc taagcaaga aaactgccta catactggtt 360
 tgtcctggcg gggaaataaaa gggatcattg gttccagtca cagggttagt aattgtgggt 420
 actttaaggt ttggagcact tacaaggctg tggtagaatc ataccctatg gataccacat 480
 attaaacat gtatatctgt ggaatactca atgtgtacac ctttgactac agctgcagaa 540
 gtgttccttt agacaaagtt gtgaccattt ttactctgga taagggtttt ctcgag 596

<210> 1488

<211> 503

<212> DNA

<213> Homo sapiens

<400> 1488

gaattcggcc aaagaggcct aagcctttct ttctgcagct aagggcagag gctgtgccta 60
 gggctatacc accactagca tctgtatttg agactgttcc cttagatggg taagagggtg 120
 aaaacaaact tagtatcagg ggtccatgaa gcccattgca tcatttttga aaatatttct 180
 agttttgtag ccaaagcaat tggttttagt aaaatgagac ttcttcagga gtcactcctt 240
 tactgtggac ccattgctta gtgggaatgg aagtatatgt atctatcttg tgtattaact 300
 tctgacttat ttatacaaga gcagctatag gagtttaca aagaacttta agttattaag 360
 ttactataaa tttggggatc ctagagtgat cttaaatatg gcaagataca gctcatttag 420
 aataaaatct cacatccatt attttaaagg gaatgattgg ggggaaaaac tgggtgaagaa 480
 gaaatataaa aaggaccctc gag 503

<210> 1489

<211> 270

<212> DNA

<213> Homo sapiens

<400> 1489

gaattcggcc ttcattggcct acaaccccaa atattaagcc aagattaaaa aaccaaacag 60
 ataagaatgg catattttta tctaaatgac ttaattttgt tctcttcttt aatgttatgc 120
 tgtgggcaca attcaagcaa cttgacagct attttctctc agcataatga agaccttgg 180
 ctactcactg ctcaactcca gtgctgtctg tgggaaattg gtagtcgttt atatcactct 240
 gtcccttetta cagttctagt tccactcgag 270

<210> 1490

<211> 352

<212> DNA

<213> Homo sapiens

<400> 1490

gaattcggcc aaagaggcct acgctcctcc tccgcaccca cccctctgag cccaggtctc 60
 tcccggacac cgcagctctc tgcgaagaa ccccgacac ctcttacctt cagccagctt 120
 cctcgggtgg gcctcagccc agacagccca gcagggtgaca ggaatagtgt gggcagttag 180
 ggcagcgtgg gcagcatccg cagtgcctgg agcgggcaga gctctgaggg cactaatggc 240

catggccctg gcctcctgat tgagaacgcc cagccactgc cctctgctgg agaggaccag 300
gtgctgccag gactccaccc gcggtccctg gcagacaacc cctccactcg ag 352

<210> 1491

<211> 287

<212> DNA

<213> Homo sapiens

<400> 1491

gaattcggcc aaagaggcct agaagctctc tgtttggaag tggagacaaa gaccaaatat 60
agattcttat tggtgcaact ctataattcc ctcaccctta ttttcaccag gcaaaatttc 120
ttcgtttttt ttatagctca gttcagattt cactttattt gtgaaacctt ctcactctgc 180
cgtaggttaa aagaggcctt tcttcattc tcatgggttt gtctattgta aagtactatt 240
attattgggt tatgtatctt tctcaaccc actgtgattg tctcgag 287

<210> 1492

<211> 275

<212> DNA

<213> Homo sapiens

<400> 1492

gaattcggcg ccgctcgac tcctactcc ccaccccgga cccccattca gaaagaagca 60
ctgttgacac ttcaatgcat attctgaact ccaggctcct tctttgcata catcaagctc 120
tcatectctt gccggtctg tggctgcaa acccagagag cagatgcttt gctcagcgtc 180
cgtaccacgc cagcaccga catgctctct ttgtacctgg gtttgaacct acaggtcggg 240
ccccgtgaag cccttggtc cccaagcttc tcgag 275

<210> 1493

<211> 393

<212> DNA

<213> Homo sapiens

<400> 1493

gaattcgcgg ccgctcgac agctgatcca agttttatgc tgatttttcc aaagatctct 60
ccctcctttt cctccataa ctcacaggta ggaaggggg cggcattagg atggtgttac 120
tgattggga ttttatgttg ttctgtcgtc ttcagcacag gtagtataag gttatattac 180
tgtagaacca cagtgccat cttgccagca gtgcccgcgc ccacctcaa agctgagcag 240
gttgagcctt tgcttagtcg gggccagacc cctcagatgg ggatatccct gggggagccc 300
gggtgtgaac cagaagaggc ttctgtgtgc ttctgtccta ggccaccact cctccagccc 360
tttgcccga catacatgcc ccacaaactc gag 393

<210> 1494

<211> 269

<212> DNA

<213> Homo sapiens

<400> 1494

gaattcgcgg ccgctcgac aagatacaat aaaacatact taactgtttt aaaaagtgtg 60
tcattaggagc ttttgaacat acaaatagaa tcatacttca atttcagttt atactgaaca 120
aaatacagtt tttctttgaa ttggtagtac ttcagaatct gagtgtctta acagtcattg 180
tgtagtaaaa tttgagtgc tctgtatgc tgggtattca agatgctaag gatccatcca 240
gctttgaaca agacaaggcc cagctcgag 269

<210> 1495

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1495

gaattcgcgg ccgctcgac gagcacttaa cttcaggtca gttgctgagg aagaggtctg 60

aaggtaatat tagtaccctc ccaactactt tcagctggaa acaagagttg ttgggccct 120
 tactgagttc ctactttaga gtcaagggtc ggccttcccc tgcactctgc tgcattgacc 180
 tcacaggtga gcagataaca tatttgtgca gctattccct tatgatttcc tctctattag 240
 agagaggtgg gagcctatga cagactgcag agtgtttgct ccattcttcc ccacccata 300
 gctctcgag 309

<210> 1496

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1496

gaattcgagg ccgcgtcgac agccatagaa gaaacttgag tatgcctggt cactttcttg 60
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 gtttttattt atttgtttat ttggtttctca gtggaaccct gtcaaattcc ataaaagcgg 180
 aaaaaaacia aactcattag agtgttttaa attgaatggt tgccttttac atatatattgc 240
 tcttcagcat ggttcctaata ttgaatgtta catgtttaga aaaattttca gccagggtgcg 300
 gtggctcact cgag 314

<210> 1497

<211> 303

<212> DNA

<213> Homo sapiens

<400> 1497

gaattcgagg ccgcgtcgac cetaaacctt cgattgaatt ctgacctgc agcctgggtg 60
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 aacagggaaca tgaaaactgc ttttgttctc ttgtgtaata gatttacttt atttttttt 180
 ctgttctctc ttcatttttc tatttttctt tctttatcct ttttttggg gggggcagaa 240
 tctcactcag tcacccactg cctgcagcc tgggtggcag agcaagtctc catctcactc 300
 gag 303

<210> 1498

<211> 380

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (21)..(23)

<400> 1498

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 gggcaggtgt gtgtgtggtg cactgacgtg tccagaagca gcactttgac tgctctggag 180
 tagggttgta caatttcaag gaatgttggg atttctgca tcttggtgat tactccttag 240
 ataccgcata gattgcaata taatgctgca ttttcaagat gaacagtagc tcttagtaat 300
 cataaaatcc actccttgca cagtttgatc tttactgaaa tatgttgcca aaatttattt 360
 ttgttgttgt agctctcgag 380

<210> 1499

<211> 498

<212> DNA

<213> Homo sapiens

<400> 1499

gaattcgagg ccgcgtcgac cctttctagc cttagacaaa tgatcaccat gttagcetta 60
 gacgaagaag ctggctagtc ctttctgtga agctaataca atggtcattt ccagacaaat 120
 ttaaggagaa cactaaggct gcttcaaaga ttatctgatt cctttaaaat atatgtctat 180
 atacacagac atgctctttt ttttaagtgc tacattttta tagagatgaa tcagtttttg 240

aatctaagct gtttgccaag ctgaagctac aggttggtgaa ataattttta acttttgga 300
 tcatactgcc tactgttact ctaaatagaa atatagggtt ttttttaatg tgaatttttg 360
 cctatcttta aacatttcaa tgcagcctt tgtaacctt aaatacactg aattgaatct 420
 acaaaagtga accatctcag acctttactg atactacaac ttttgtttc tgatggccaa 480
 aataccta atacctgag 498

<210> 1500

<211> 334

<212> DNA

<213> Homo sapiens

<400> 1500

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 gcgatgtgac atggcaaat tagaactgac ttaaattgaa caaacctca ctgagcacct 120
 ctgatgttga gcacctgctg aatactgagc actgaatggg ggagggggag gggagcacgg 180
 ggtgagtcac cctgggactc ggtctcaggg atatgctac caatagcggg tatcgtaagg 240
 catgtaccca aacataacgg atgtaaggca gaaagtatc ggagaaggaa tgagaaagt 300
 tgcgtgatgt taatgaaaag tctaacagct cgag 334

<210> 1501

<211> 220

<212> DNA

<213> Homo sapiens

<400> 1501

gaattcgagg ccggtcgac aattctagc ctctcagcaa cttaattata aaacaattac 60
 ttctaatttc tcacttagtg ttgggggaatt ttgcttgga ttttctaggg aaagaggaaa 120
 agcagaggta gtggtagctt tgaaaatgtg gaaccttatg ctattatgta taacttact 180
 tcaatatggc ttacagaag acacagtcac ccaactcgag 220

<210> 1502

<211> 165

<212> DNA

<213> Homo sapiens

<400> 1502

gaattcgagg ccggtcgac gggcaggtat tgaactctta agtacaaaat tttttccca 60
 aagaatttta aaatatacta tccactatc tttttgcatc cagcattagt aattatagga 120
 ttattgctgg ttgctactct ttctgtctat cctcagtgc tcgag 165

<210> 1503

<211> 614

<212> DNA

<213> Homo sapiens

<400> 1503

gaattcgagg ccggtcgat gtacatatac ataagcatgc acacagacag acataaaaat 60
 gataggatca tataagacat tgtatagact gttttatgat agggtaatac acttttcttt 120
 tctttttctt ctttgtccag ctctctgtt ctttatccat atcactactct atccctactc 180
 aaggaaacct agcaacatgt ttatagttcc atatgtctca ttatgtctat atgtcattta 240
 catggtatct tatatacagg gtttacacat ttatagtaaa cgatctttat atagtttata 300
 caatatctgt ttttcttttc tctgcaatc aaacgtgtt catatccctc aaacacaccc 360
 acaccctca cttacacatg tgttatcact gtttgccttt gtaacttgt gttcaacgta 420
 tacaatttaa tcatttaage atacctgtg gaaactctgc caacttgact actgtgcctc 480
 caatttcttc ctttttatcc catcataata aacctggcaa taattgattc aaccatatgc 540
 acattgatat cacttatgct gtttgtttat ttttactact acaaacatgc tacaacaaag 600
 ttccgggact cgag 614

<210> 1504

<211> 329

<212> DNA

<213> Homo sapiens

<400> 1504

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gaattcgcgg ccgcgtcgac aggttaagtc ttaatttca cttttcaggt ttgttttggg 60
atttgtctgg gggcagattg ttaaggcctg ttttagaatc agctaccctt gcattgtaaa 120
tggttgcttct aagagcacca gatcgtgggc tcttggtccc cggcaaggca gagctgatga 180
gagaaggtcc ttgtcccgag cactgcaggc aggatggtat agtttggtgg tttcttgctg 240
tgtgtgtttc tctgtgctgg gtgagggaga cagctgggag ttggccttta tccagtgtcc 300
gagagagctg tggaagggat gagctcgag 329

```

<210> 1505

<211> 306

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (23)

<400> 1505

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gaattcgcgg ccgcgtcgac agngaaatct gcctctccca tgtctcaagc cacgtggaat 60
aaattgtgga aagacctgtg ctgtctggct tgtgcttta cacatgctgt tatctctacc 120
tcaaatgctg tcttccccca ctggctaacc cttgttatcc tttataacag ctcagaagtt 180
gcctgtctaa agacactttc ttggcctgaa ttagaactgc cctctgacgt gctacttcca 240
tcacagatct taccatctat tatattatta catacacaca cacacacaca cacacacaca 300
ctcgag 306

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<210> 1506

<211> 353

<212> DNA

<213> Homo sapiens

<400> 1506

```

gaattcgcgg ccgcgtcgac ccttttttca cacagtgat agaaatcctt ctaactcctt 60
gattctttca ctttatctta ctggctctca catgtcagaa cacagaagtt gtgttttggt 120
tcgttttggt tcacagagct gtggtaagta ttggatgggc cattgtttgg atgttttcga 180
tgtttctgcc tttcttagat ctattcgggg gcatttgggt tgtctccaat ttgttggtac 240
ttcaaacatt ggtatactca atacagtgt ttagggtagg gatttttaca gaagaaacta 300
aacagccggt agaaaattat ttttttacat taactcaacc agttattctc gag 353

```

<210> 1507

<211> 331

<212> DNA

<213> Homo sapiens

<400> 1507

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gaattcgcgg ccgcgtcgac ggaaaatgaa gctcttaag atagtctgta aaacagccac 60
agagttcaca acaccttata tcatagggtg tcatgactcc taaaagtctg taageccaag 120
aagacaagac catatctttt tcttagttaa tcatgatgga agtattgtgc agatttttaa 180
actagcttta ttgtggttta attgacatac aataagttgt atatatttga agtatatagc 240
ttgataagtt ttgatagtgt tataccaata aactcatgac gacaatcaga taatgaacat 300
atccaagacc ctcgagttaa gttgactcga g 331

```

<210> 1508

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1508

gaattcgcg cgcgctcgac gaggtcccc tttttctaa atttctctgt gtgcttttct 60
 cccctcgtc ctttttccat cggttctctt tcaactctgc tctctttgca agtccctaaa 120
 gtatcateca ttttgccgtg tatttatggg tctccctcat tctttctcc tcagtttttc 180
 cttttcttg ctgtcttggg gagctctgc atgtgacca attctcgag 229

<210> 1509

<211> 551

<212> DNA

<213> Homo sapiens

<400> 1509

gaattcgcg cgcgctcgac ccaacagatg agtctttttg gtactagata gggaagagtg 60
 aatgtcctgt gttgatatag aattgtttta gttatctgtc cctgtcttaa ttctctgca 120
 tatttagtgt aattatcttc ttgatctatg ttgtcttagg atgcaagggg gaatttgagc 180
 atcttctctg caatcttttc ctctatcag agtctcagaa tccactcttc tatttccatt 240
 tgactaaatc ataggcatct aagagggagc cacctcggc cctactaac tagcagaata 300
 agactgacca gtttccaact aatcaattac ttgagttacc atgtccggca gatttctact 360
 ttgtgtatc tctcaactct gttgccttgc tcatttccag caccactctg ccagtcagg 420
 ctttgatccg cacatagctg gactaactgc tcatctacct aatgtggctc attctccata 480
 gcactatcag attaatcttc ctaatgtggc acttgacccc tactacttcc tgcctaaagc 540
 acaacctcga g 551

<210> 1510

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1510

gaattcgcg cgcgctcgac gctttttaa aaaatttcag aactgtgtac tgtgatgaa 60
 ctgctgacga atctcagga attaatgtgc atcaacctac tgcctttgct cacaagttac 120
 ttcagctctc tggagtgtct ctctctggg atgagtttcc tgcacagcc aaatcttccc 180
 cagtgtgttc aactgcacca gtggaactg agccaaagct ctcacctagc tggaaaccca 240
 aaattattta tgagccacac cccacagctc gag 273

<210> 1511

<211> 291

<212> DNA

<213> Homo sapiens

<400> 1511

gaattcgcg cgcgctcgac aattatcata tttccataa agagagcatt gatttcatcc 60
 attggcatat tgagatgctt tctgtttga cattggtcac agaatttaa aggaaaaaca 120
 acattactgc acattcagga atcagaaata gaagtaaagg tcaggatctt aaagggaaac 180
 ttgacaggat atcaggcctg cctttaaata aattcagaca tgataagttt actaccaatc 240
 attttttcaa taacaacaat aatatattta tttttccca tggaaactcga g 291

<210> 1512

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1512

gaattcgcg cgcgctcgac cgcgtttcag cgaagtcga cgtgaaggat agcagtggcc 60
 tgagaaagac ccagtcattg cagcctccag catcagttca ccattgggaa agcatgtgtt 120
 caaagccatt ctgattgtcc tagtggcctt tctctctc cactcagcat tggcccagtc 180
 cgcgagagac tttgaccac caggccaaca gaagagagaa accctcgag 229

<210> 1513

<211> 104

<212> DNA

<213> Homo sapiens

<400> 1513

gaattcgcgg ccgcgtcgac ccgccaccga aaatctgttc tgacatgaga atgttcacaa 60
aagacagcac ttctcgactt ctgctgataa gcttgggtct cgag 104

<210> 1514

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1514

gaattcgcgg ccgcgtcgac aaattttatt gttgttttaa aaacctgtgt tttttatatg 60
aggtttaaaa aatccatatt ttctattact cctcttctag gttctgagtc ttctggtagt 120
gtagggtcat ctacaggctc tctttctcac atccagcagc ctctccagg tacagctctc 180
agccagtctt ctcatggcgc acctgtcgcc tatccaactg tcagcactca tagttctctt 240
tcctttgatg gtggcctaaa tgggcaagtc gcactctcta gcactagctt ctttttgctt 300
cccttggaag cggcaggcat accacctggc agtattctga tcaaccact tctcgag 357

<210> 1515

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1515

gaattcgcgg ccgcgtcgac ggtatttgc tactgtatta acttcgacca tcccaataga 60
aacgtgccaa taaatcattg atgatcttta attgctgcct gtacgggtgca ataataccaa 120
tatcagaggg actgcatcca gccttaacaa aaatggaggt taggaaaact atgagtttgg 180
cttctgttac attgtctacc accacctttt tcaacttgtt ctggcgctgg actcgag 237

<210> 1516

<211> 543

<212> DNA

<213> Homo sapiens

<400> 1516

gaattcgcgg ccgcgtcgac cgaggacaga agatagaac aagagtttga ggtttggctt 60
tgattagaaa cttgggtggc tcaaaagaaa cttaccagaa gcacagtagc ttaggtttg 120
gggtcccaaa agggtagcct gagcttttta gggctaaaa acacctaacc 180
tgtgtcttaa actaaattta tgactgagct tctgccatgt ggtgatttat agtatgtgct 240
ttcagattcg cctacttta atcatgaaag ctctattcta tagaccacca cctgtgtgat 300
gtccttgttc tcaaagacga tttaaacttg gactgtttt ccagtaaaa gagatttgc 360
ttcagaatgt caggtgtatt cataacggat ggttcttcat tacttacaaa tttttgta 420
taatctctg atgaaacaaa aagctatgat gttgctgtta atgtgtattt gatagatatt 480
ggttgacaaa tgcaggctaa atgggatgtg gcaatacttt ggggccagat atagaggctc 540
gag 543

<210> 1517

<211> 431

<212> DNA

<213> Homo sapiens

<400> 1517

gaattcgcgg ccgcgtcgac caactgcac gctccatttt ttcaggccat caatcaacca 60
tggggtctct gatctctctt tctcttacat cccatgttct attcattagc aactcttgc 120
agtatagctt tgaaaataag ttggattatc tctaactacc tgttactgct cttgactttg 180
gacaatatgt tatcaaccag tgaccatttg aaagtataca aattatttga cttacttgag 240
caaaatcttc cgttggcttc tctctcacc cggaatccag cttgaagaat aaccactacc 300
tacatggccc tgcgcgtcgc ggctccggac gccatcttgg cctcagctcc caaagcact 360
tccctctca cgtgtctcca gctgcgcgtc gtgtctctcc ttactctac gggatacccc 420

acccccctcga g

431

<210> 1518

<211> 361

<212> DNA

<213> Homo sapiens

<400> 1518

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actccagcct gggtagacaga gtgagaccct gtctcgaaaa agaaacatac ataaggaata 120
tattgtctca gatattctaaa gaatccagga gtacacctgg tggtagccac tgggtgatgt 180
gggtgtgaaa caatctttct ccattctetta ggtctactgt ttctgtgtc tctccattt 240
taagatagac tttgttaagt aaaagtttac tgtttccagt ggaagggaagt tgcctctttc 300
caaacagtac caataaaagt tccaaggctg actcatgggt ccaactatag cagtgcctga 360
g 361

<210> 1519

<211> 274

<212> DNA

<213> Homo sapiens

<400> 1519

gaattctgga gtcaataaca ccaagtcgga cttgcggtta atcgaagtca ctgagaccat 60
ttgcaagagg ctctctgatt atagcctgca caaggagagg accggcagca atcgatttgc 120
caaggcagtg tcagagacct ttgagacatt acacaacctg gtacacaaag gggtaaggt 180
ggtagtgga atcccttatg agctgtgga cgagacttct gcagaggtgg ctgacctcaa 240
gaagcagtg gatgtgctgg cgacgagtct cgag 274

<210> 1520

<211> 687

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (21)

<400> 1520

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aagaaaaatga gtataggatt tgaactaaaa ataacatggg acttgaagat tgacttgcaa 120
agtcacagtc attatattga cagatgcatt tcaagtagag ttgccagaca aaatatagga 180
ttttgagtta gattagaatt tcagataaac agcaataaat tgttttaata taagtatgtc 240
cgccaaactg tagatatact gaaagctatt gctgtttatt gaatcaaaat ttaattgggg 300
gtctgttaatt cagtttgcca aatctggctc ccctagtcc acacaagtta atttcttgca 360
cattgtgata taggaggtcg gataccatag atacggtaga gttgtacatt atccaggtcg 420
cctgagtcct aaaccagtat ccattcctaa ggtcttatga ttaggataaa agattttcta 480
cttcagcaca aagtgccttt tgaattttg tgatgattat ttctggaaat ctgtcccatc 540
ttagcattgc tagagttggg ttatcatgag acataactca agagaaatta gctatactga 600
gatcatttta tcaaaggtac tctgacata ggcaatttga tatgtcccaa gtctgcctcc 660
aatgtcaggt gagttcccaa actcgag 687

<210> 1521

<211> 132

<212> DNA

<213> Homo sapiens

<400> 1521

gaattcgcgg ccgcgtcgac gagattgtgc cctcttttc attctctccc aatagatctc 60
atgtctaaca ctactctaac tttgtctccc tctgagacca gcatgaactc cagttctttc 120
tggcctctcg ag 132

<210> 1522
<211> 324
<212> DNA
<213> Homo sapiens

<400> 1522
gaattcgcg cgcgctcgac gtgatcttca gttttcactt gcacctttga atattctgcc 60
atgttttgaat tccttagaat gatcaagcat cttttttgtt gttgggggtt ggtttttgt 120
ttggttttgt tttgtttgag acagagtttt accctgtcac atgggctgga gtgcagtggc 180
atggctatgg ctcaatgcaa ccttgaccat ctgggtctca gtgacctca gcctccccga 240
gtagctgaga tcacaagtgc taattttgga aaaattgttt gtagagacag ggtcttacta 300
tgttataagc ccaggcctct cgag 324

<210> 1523
<211> 373
<212> DNA
<213> Homo sapiens

<400> 1523
gaattcgcg cgcgagcaag aagttcccg gtatacagat tctgaacca ggcaagaagt 60
tcceatgtgt tcagaccctg aacccaggca agaagttccc acatgtacag gccctgaatc 120
caggcaagaa gttcccatgt atacaggccc tgaatccagg caagaagttt taatacggac 180
agaccctgaa tctaggcaag aaattatgtg tacaggccat gaatccaaac aggaagttcc 240
catatgtaca gatcctatat ccaagcaaga agactccatg tgtacacacg ctgaaatcaa 300
tcaaaaatta cctgtagcaa cagattttga atttaagcta gaagctctca tgtgtacaaa 360
cctgaactc gag 373

<210> 1524
<211> 242
<212> DNA
<213> Homo sapiens

<400> 1524
gaattcgcg cgcgctcgac tcgagattta ctggcaactg ttcttttccc atcaaaaatc 60
agtgaatgtt tgctgagtat aaatgtgtt tccttaaacc acttgctgct ttaggatcaa 120
ctttacctgt accttttctc ctttctctcc ttgccacctc aggtgcaaat ctgaactcag 180
tgtctgtctt ttccattttc tcgtctctct cccctcttcc cccatccgcg gtttgctctg 240
ag 242

<210> 1525
<211> 527
<212> DNA
<213> Homo sapiens

<400> 1525
gaattcgcg cgcgctcgac cttgaattct aaaagccaga gctggaaata accgaaaagt 60
cttaagggaag tgtgtgtgtg tggctgcca taaaataaag ctaatgagtg atgtagaaga 120
gaattctagc tctgaaagtg tctgttctgg tcggaagctg cctcaccgca atgtttctgc 180
tgtagctaga aaaaagtatt tacataattc tggaagatga acagagctta aagtcagaaa 240
ttgaagaaga ggagctaaaa gatgaaaatc aaccattacc agtgtccagt tctcacactg 300
cccagagcaa tggtgatgaa tctgaaaaca gagactcaga gtcagaaagt gatttgctgg 360
tagcccgga aatttgcat gctaattggtt acaagtccca tactccagca ccttcaaaga 420
caaaatttct taaaatagag tcttctgagg aagactctaa aagtcatgat tcagatcatg 480
catgtaacag aactgtctgc ccatcaactg ctgtgcagag cctcgag 527

<210> 1526
<211> 388
<212> DNA
<213> Homo sapiens

<400> 1526
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 tgccaatgtc tggttggttt ccaatacggc agatgcatca gtaggtcttt ggaaaaactg 120
 taccaacatt agctgcagt acagcctgtc atatgccagt gaagatgccc tcaagacagt 180
 gcaggccttc atgattctct ctatcatctt ctgtgtcatt gccctctctg tcttcgtgtt 240
 ccagctcttc accatggaga agggaaaccg gttcttcctc tcaggggcca ccacactggt 300
 gtgctggctg tgcattcttg tgggggtgtc catctacact agtcattatg cgaatcgtga 360
 tggaaacgag tatcaccacc tgctcgag 388

<210> 1527

<211> 161

<212> DNA

<213> Homo sapiens

<400> 1527

gaattcgcgg ccgcgtcgac gagctagggc acgggtgcag gcaggaaaca gaaacaacac 60
 agctacacat tcttgagata actctgtctt ttatactgaa actaaccaac taagaaaatt 120
 attcaatgca ttatacatcc ttaatcccca caacactcga g 161

<210> 1528

<211> 294

<212> DNA

<213> Homo sapiens

<400> 1528

gaattcgcgg ccgcgtcgac atcctaagca catacgcata tttaaactgg caccaagctg 60
 ttaattatgt taatgccttt atggcacaaa aatgtaaaat ttactattaa cttgggggct 120
 gacctaaaga gctggcaaat ctccctatc ctccctatc tggtatctt gctgggcttg 180
 caatgccagg gctacttag aatagccaca gccacacatg agcatcatgg gagacttcg 240
 ggggcaactt cagcttcttc ctctaaaaatg attcccgaact cccagatcct cgag 294

<210> 1529

<211> 452

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (424) .. (427)

<400> 1529

gaattcgcgg ccgcgtcgac agatgtcaga ggatttagca aagcagctgg caagctacaa 60
 agctcagctc cagcaagttg aagctgcatt atctggaaat ggagaaaatg aagatttgc 120
 aaaattgaag aaagatttac aagaagttac agaactaacc aaagaccttc tgtcaactca 180
 accttctgag acgcttgcaa gtccagacag ttttgcttct actcaacta ctcattcatg 240
 gaaagtagga gacaagtgtg tggcagtcct gagtgaaagt ggacagtggt atgaagcgga 300
 gattgaggag atagatgaag aaaatggcac cgctgcaatc acctttgctg gttatggcaa 360
 tgctgaagtg actccactgt tgaacctcaa gcctgtagaa gaaggaagga aggcaaagga 420
 ggannntgg caacaaacc atgaacctcg ag 452

<210> 1530

<211> 369

<212> DNA

<213> Homo sapiens

<400> 1530

gaattcgcgg ccgcgtcgac ctgaagtaac caacaactag gtctttgtta gctaagcagt 60
 gtataagtta ttaacaaaac tcaaaaacag ttaactgtgg ttggaaatat tcattctaaa 120
 aatcaattta tgaaaataaa aaactcacca aaaaaatcat caagtaagta gaggagacat 180
 aattggctga aaataaacta ggagagaaaa aaccctaaa accccctaa aactccaat 240

cctctttttt tgattgttca tttttattgc ttgttttatt ctttcatggt tcaaattcct 300
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 gggctcgag 369

<210> 1531
 <211> 211
 <212> DNA
 <213> Homo sapiens

<400> 1531
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 gtctccaaac caataaaaaa ctaaaacttg ttccaagac tgggaggtaa agtaggctta 120
 taaaacaata cagcaaaaga aagccaagtg gcctaattgt ttccagtgtg cttgccatct 180
 tagcatggtt actttccaga tgtcactcga g 211

<210> 1532
 <211> 211
 <212> DNA
 <213> Homo sapiens

<400> 1532
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 gattacaaga ttccagaag cctgaacaa ttcaatttca accatgctc tagaacatcc 120
 tctcttcaca aaaaacccaa cttatctgc tcgtcccatg aaagcagggt ttccagctaa 180
 accaaggcaa atggcacaca caaaactcga g 211

<210> 1533
 <211> 447
 <212> DNA
 <213> Homo sapiens

<400> 1533
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 acgacaaagg agaaggagac aaaactacct ttactttccc gtgttccaag tgctggttcc 180
 tctctagtac cattaaatgc taaaaattgt gctcttcag tttctaaaaa agataaagag 240
 cgttcctcat ctaaagaatg ttctgggcat tctacagaat ccaccaaaaca caaggaacac 300
 aaagcaaaga ctaataaggc cgattctaatt gtatcttcag ggaaaatttc tgggggacct 360
 ttgcgctcag aatatggcac tctacaaaag tctccccctg ctgctttgga agttgtgcca 420
 tgtatcccaa gccatgcagc actcgag 447

<210> 1534
 <211> 150
 <212> DNA
 <213> Homo sapiens

<400> 1534
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 catgcctgag aggtaatgac aactaggagt tagtcagatt agtgcttggg tgaggcctaa 120
 gaaggcactt atgaagctga gaagctcgag 150

<210> 1535
 <211> 253
 <212> DNA
 <213> Homo sapiens

<400> 1535
 gaattcgcg cgcgctcgac ctttagagac caatttgctt gaattttaaa atcttcctac 60
 acacatctag actttcaagt ttgcaaatca gtttttagca agaaaacatt ttgctatac 120
 aaacattttg ctaagtctgc ccaagcccc ccaatgcat tccttcaaca aaatacaatc 180

tctgtactct aaagttatct tagtcatgaa attttatatg cagagagaaa aagttaccga 240
gacagaactc gag 253

<210> 1536

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1536

gaattcgagg ccgcgtcgac gcaacatggc gtccaggctc aagcggcgtg ccgtggaaag 60
tgggtgtccg cagccgcggc atccccagc ccagcgcgac gaggaagagg aaaaagaagt 120
cgaaaatgag gatgaagacg atgatgacag tgacaaggaa aaggatgaag aggacgaggt 180
cattgacgag gaagtgaata ttgaatttga agcttatcc ctatcagata atgattatga 240
cggaattaag aaattactgc agcagccctc gag 273

<210> 1537

<211> 347

<212> DNA

<213> Homo sapiens

<400> 1537

gaattcgagg ccgcgtcgac cctaaaccag cgaacaccag tgcaactcacc attcgtctc 60
caactactgt cctctttact agtagtccca tcaaaactgc tgtgtaccc gttcacaca 120
tgagttctct aaatgtgtg aaaatgacaa caatatccct cacaccagc aacagtaaca 180
ccctctttaa acattctgcc tcagtcagca gtgtacagg aacaacagaa gaatcaagg 240
gtgtccaca gatcaagaat ggttctgtg tgctcgttca gtctctggg tccaggagca 300
gcagtcgggg gggaacatct gctgtggaag tcaaagtggg tctcgag 347

<210> 1538

<211> 287

<212> DNA

<213> Homo sapiens

<400> 1538

gaattcgagg ccgcgtcgac ctggctgatg gagcacgaag acgaccccca tgtggacgag 60
cctttagaga cttcccttgg acatatctg ggacgggagc ccattctctc agagcaaggc 120
ggccttgaag gatctgttgc tctgcccga gaagcaaac cgctttgagt gaagaggaaa 180
gacaggaaac aactaagagg atgttgagc tgggtggcca gaagcagcg gagcgtgaag 240
aaagagaggt acgggaggca ttggaacgtg aacagcaaca tctcgag 287

<210> 1539

<211> 298

<212> DNA

<213> Homo sapiens

<400> 1539

gaattcgagg ccgcgtcgac cgttgaaatc agcattcaga gcaacttcca gccaggaatg 60
aaattggaag tggctaataa gaacaacccg gacacgtact ggggtggcac gatcattacc 120
acgtgcgggc agctgctgct tctgcgttac tgcggttac gggaggaccg cagggccgac 180
ttctggtgtg acgtagtcac cgcggatttg caccctgtg ggtggtgcac acagaacaac 240
aagggttga tgccgccgga cgcaatcaaa gagaagtaca cagactggac aactcgag 298

<210> 1540

<211> 425

<212> DNA

<213> Homo sapiens

<400> 1540

gaattcgagg ccgcgtcgac ggagagagca cttgcagggg aactcccatt tataaaacca 60
tcagatctca tgagacttat tcaataccat gagaacagca tgggggaact gctccatga 120

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ttcaattatc tccacctggc cccacccttg acacatggga attgtaacaa ttcaagatga 180
gatttgggtg gggacagagc caaaccatat aattcttccc tggccctccc aaatctcaag 240
tcttcacatt tcaaaagcaa tcatgccttc cccaaagtcc cccaaactct tatttcagca 300
ttaactcaaa attccatagt ccaaagtctc atctgagaca aggcaagtcc cttccaccta 360
tgagcctgta aatcaaaaag caagtgaagt attttctaga tacacaggga tacaagcatc 420
tcgag                                           425

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<210> 1541

<211> 347

<212> DNA

<213> Homo sapiens

<400> 1541

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gaattcgcgg ccgcgtcgac ttatacttct gctacctgtg gtctttgtct ctttaccctg 60
aagacctctt tgettgttcc acttaggtcc tgccctccaa ctctcctgcc ggtgtcagcg 120
gtgaccttta tcatgggtc cagtggacaa cctaatgtct tctttctgca ttctacaact 180
tcatttgga gtgttgactt tccccactc ttgaaacac tcaactgtcg tttccttgge 240
aggatgttct tctttccctc cccccacccc ttttcttgc ccttccctc actgtctgtt 300
tcgttttttt tcttctaccc agcactgaaa cctgggtgtt cctcgag 347

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<210> 1542

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1542

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gaattcgcgg ccgcgtcgac cggaagaaag tgcatggtgt cagcttgctt gaaaataaca 60
ttgctttgct tgttctacta ctctacatta ggggagaatt tcgatcgcca ggcagcctt 120
cggcggtctc taatttacac agacactctg gtaagacgac cgaagaaagt caaaaggaga 180
aagactatta caggagtcct tgacaacata cagaaggagc tagcatcagg cactggccaa 240
gatgatgtcg atggccactc agtgtacacc cctgatctcg ag 282

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<210> 1543

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1543

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gaattcgcgg ccgcgtcgac agcgttccct ttctgctctc caccacgctc actgttctct 60
ttccaaggag aacatcagtc ccattggatt gttttcttca ctagtgtatt cccagggctt 120
ggagcacaga aggcacccaa taaaagtcac ctgaatgagc caattccttc tccattttc 180
catgtggcta tttaaagcaa ctgtctactt tctcccatc ttcaacctcc cccacctctc 240
agatgcctcc tacctcagag gagaaaaata atgtactctt ctcaactcg ag 292

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<210> 1544

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1544

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gaattcgcgg ccgcgtcgac gtcaggggaa ctaaaaaaga aaaaaacagt cttgcttgca 60
gcagggtgtc catgcactac tttcttcaat ccttttgtgc catagtggga atctggacct 120
ttgagtgttg cacatgtgtg gtgacacaca ttgggcagga tctctatggg ttcttgaac 180
atgacctga atgtgttagc tgtcccatca cactcgag 218

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<210> 1545

<211> 452

<212> DNA

<213> Homo sapiens

<400> 1545

gaattcgcgg ccgcgctcgac actgaggagg tttgaggcgc gcgctctggg caggaagcct 60
 cccagcgttt ctgaggatga tatctggcta aaaagcagg gagacaacta tagtgccacc 120
 ctctcggagc ctgctgccag ctctctttcc ccagatcaca aaaacatgga aattgagggtg 180
 tctgttgagc aatgtaaaag tgttctctga atcaccctta cccacatcc catggaccat 240
 ccctccgctt tctattcacc ccgcataat ggcctcctta ctgatcacca cgaatccctg 300
 gataatgatg ttgccagaga gatccgctat ctgatgagg tgctagaggc caactgctgt 360
 gattctgctg tggatggaac gtacaatgga acatccctcc cagagcctgg tgcagtgggt 420
 ctggtgggag gctaagccc cctgtctcg ag 452

<210> 1546

<211> 449

<212> DNA

<213> Homo sapiens

<400> 1546

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 tggatggggc caaatactgc acccaggtt ccccatcaga atcagcacag acgcacctgc 120
 atctaccatg tagttctcca cagtatccct tgggtgggatg ctgggtgggt gccaaatttt 180
 cactaaagcc aaccatgcgg agaagcacc tgggtctgtg cctccctgtg ggtatagtgc 240
 gtgtttatcc agaactagaa gatacaatag caagggaaga taacaatagca agcattgctg 300
 aatgctacag tgtaacactc tgaggcttt tgtgaatgaa ttcatttagt ccttgtaaac 360
 ctctgggggt agctcaccat tctgtctcca tccacagat ggagaatgag gcacagagaa 420
 gttaagtaac ttgcccaact tcaactcag 449

<210> 1547

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1547

gaattcgcgg ccgcgctcgac ctgtggatca tttagctgca gtcctctttc ctacaacctt 60
 gattagatca tataagttcc agaaggcat gccaccacga attctcttta atactgatgt 120
 agccctttc atcagtgaat ttactgcttt tcagaatgta gtcctgggtc tcgag 175

<210> 1548

<211> 211

<212> DNA

<213> Homo sapiens

<400> 1548

gaattcggcc aaagaggcct agtaaggaaa aaaatctggg ctgttagagt gaaaaagtgt 60
 gttttatgct aattgtgaaa ggaaaatggt aggagtatgg tttttaaaact tgggcttcat 120
 tttaaaattt ttttttttaa acccagttat ttcaactgat ttgctagctt cagagaagag 180
 atccgaatct gtgccccagc ctgggctcga g 211

<210> 1549

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1549

gaattcggcc aaagaggcct agtcaggcta ctgttttagg tagagtgtac aaagaaacca 60
 caagtaatcc tgatgggttt acacttaaag aaaacctgtt gggatgcag agaacaggat 120
 aaaaattata aaataagaga ttggaatag aagtatttgg ccttaattatt tttcaatttc 180
 agcctctctc tctctcagtg tctctctctc atgtctttct ctcaagcagg ccaactcgag 240

<210> 1550

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1550

gaattcggcc aaagaggcct acgattgaat tctagacctg cctcccgcct cattgcctgc 60
 cctttcccct ctcagtgcgc ttctgcaaca cttagattct ttgtgcaccc tatatacatg 120
 agacacttcc ttgccttgag gcctttatgc atgggtgttt tctgttctcg gtatgcttcc 180
 ctccccttcc tttgtctggc taagctcgag 210

<210> 1551

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1551

gaattcggcc aaagaggcct aagattgaat tctagacctg cctggccttg tatgttttaa 60
 gagttttaca attttatctc ttatgcataa atctgtgac catttgaagt taatttttgc 120
 tttgttttgc tttgtttgtt tgggtttttt ttgggagatg gagtctcact ctgttcccca 180
 ggctggagta cagtgtacag tggcacgac tcagctgacc acaacctctg ccccccattc 240
 cgag 244

<210> 1552

<211> 254

<212> DNA

<213> Homo sapiens

<400> 1552

gaattcggcc aaagaggcct agggagtggc actaaggatc aagtatctcg ttaaaagaaa 60
 acaaaaaccc aagcatgagg aaggcgggfg ccacgtctat gtgggcttcg tgctgtgggc 120
 tgctgaatga agtcatggga actggagctg tcaggggcca gcagtcagca ttgcaggag 180
 ccaccggtcc attcagattt acaccaaacc ctgagtttcc cacctacca ccagcagcta 240
 cagaagagct cgag 254

<210> 1553

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1553

gaattcggcc aaagaggcct cccgacaaga gcaaaactca gtctcaaaaa aaaaaaaaaa 60
 aaaaaagaaa tagaacatct catccacatg tccatatcca ctaactggat ctttgttttg 120
 ataactctct tccctttctc tgcaggttta ctcccagtat atccatttct acctgagcca 180
 ctcgag 186

<210> 1554

<211> 239

<212> DNA

<213> Homo sapiens

<400> 1554

gaattcggcc aaagaggcct aaacagatgt taaaatattc agtgaaagt ttattggaaa 60
 aaggaattga gatataata tgagatttgg tgaaattgaa ggagaaaatt taagtgcagc 120
 tttaaaatat attctgaatg aaaactgtat tgaggattca ttttgttcc tttttttct 180
 ttttctcttt tctccttttt cttcttttta atagtctagt tttaggcagc cacctcgag 239

<210> 1555

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1555

gaattcggcg ccgcgtcgac ccagatgaga ctgtggctgc agccagtgc ttgctggtaa 60
 cttgtgagag atgctgagcc acaggaccta gctaagtggc atccatattt cagatccatg 120

gtaactgtaa gttagtaaac ttgtttgttt taagccacta aggtttgggg taatttgta 180
 tgaagcaata aataactcat atgccaacta tgtgccaggc actattcttg gctctgggga 240
 caactcgag 249

<210> 1556

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1556

gaattcggcc aaagaggcct aaatttatat cagggtctttt tttccccctc taattctgag 60
 tttttgctag gatagatctt tcacctctta gaaatcact ctatctgac tttaaatccg 120
 tgagttggaa tgagaaatat tccacttgct aaaaatttct tcagcttttt aactttttac 180
 aatctcaaca ggtaaaggc agatctcgag 210

<210> 1557

<211> 368

<212> DNA

<213> Homo sapiens

<400> 1557

gaattcggcc aaagaggcct actatattcc atacaattag atttgttctt gcctcaagac 60
 ttcagtctga ttgatgttg atgctgtatt ttgcacatac tcatttgact gtgacagtca 120
 ccattgggtt gcttttgatt ccaaagtttt cacattcaag caataacca cgagatgata 180
 ttgctacaga agcatatgag gatgagctag acatgggccc atctggatcc tacctgaaca 240
 gcagtataca ttcagcctgg agtgagcata gcttgatcc agaggacatt cgggacgagc 300
 tgaaaaaact ctatgcccaa ctggaaatat ataaaagaaa gaagatgac acaacaacg 360
 ccctcgag 368

<210> 1558

<211> 474

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (19)..(23)

<400> 1558

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 tagcacagtg aggccaggg gctttgaact tcctcctaga ttccagttct gaagccttca 120
 ctactggct gagagacttg ggcaaattat ttaaccttc tgtgagtatt ctcatcgata 180
 aaatgggagt actgacagta ctgtatctcc tcagaggatt gttgcaaaga ttgcttcag 240
 taatgtgcac agagtactta ggacaatacg aagtgtgcag taatacattg ccattaaaaa 300
 gagatctcgg gtgtcccgcg gttgccgaat ggagctgagc atcttgatgg aaccagggat 360
 cttaggtgta agactgaagc cctaggctat ggcggaagt ggggtgctga agtacaagt 420
 gaaatatgcc aactgaacce taaaccgtcg attgaattct agacctgcct cgag 474

<210> 1559

<211> 128

<212> DNA

<213> Homo sapiens

<400> 1559

gaattcggcc aaagaggcct aattgaatgt taccagaggc tttttctcca cctatggaga 60
 taatcacatt tttgttctt cattctgttg atttatcatg tttattgttt tgtgtatgtt 120
 ccctcgag 128

<210> 1560

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1560

gaattcggcc aaagaggcct agctctctat acagatcttc caaacagaca agcccttcag 60
agccaagatt gcttcaatca ccagcatgtc agaaatagca tcaccagctg cctgggtaaa 120
caagtcaata atgttttcaa gcattcttagc agcttttctt ttcttatctt ccagttgttc 180
tgctgattgt tttatcttca tttcaacagc tgtactaaac agtgcagtgc catgccatt 240
tgctctcgag 250

<210> 1561

<211> 229

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (21)..(22)

<400> 1561

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taaattaaac ctacaggtag atattccagt agaatagtta caacaataga gagtaaatta 120
gcatagtgta aaaatggaca tatgctctgg tttttttttt tttttttttt caatagagat 180
gggattttcc tatgttgccc aggatgggtc cccaacttct ggcctcgag 229

<210> 1562

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1562

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ctgttattct ggcttttatt tggtttttcc tagcagctgc ttcactagca gtcateggtt 120
caggaagagc tgaaggaata gaagaattat tgatgttgga gactggacaa tcccttttgg 180
caaatttaaa tgcaaaatat gcactcgag 209

<210> 1563

<211> 278

<212> DNA

<213> Homo sapiens

<400> 1563

gaattcggcc aaagaggcct acttgaagc atacataata ggtgttgggt tattttttcc 60
tcattggaatc atgggtagt tcatctcttc ctgtttgttt cgtatagggc 120
tgatagttca ggaccattca gaccccatgt tcagttcata tgcctataag tccactacc 180
tactgaatga atcaaatcgt gctgagttga tgaattacc tatgattcct tcttcgtcag 240
cttcacaaaa gaaatgtgag aaaggtaata attctcag 278

<210> 1564

<211> 234

<212> DNA

<213> Homo sapiens

<400> 1564

gaattcggcc aaagaggcct accctgatgc gtgatgatgg caccaccctc tcagatgata 60
ttcacgagct ttatgtgtac aagtgtgatg agaatagcac gtttaataac catgctctgt 120
acctgggctt gccttctgctc aaagaggact acaatggctg ccctaataatt cttctagcc 180
tcattctcca gcgcagcacc aaagagtcct tcttcatttc cactacagct cgag 234

<210> 1565

<211> 294
 <212> DNA
 <213> Homo sapiens

<400> 1565
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 tttcttaggt gagcggaata ataagaggc ttaaacctct catccacaaa tacaagcatg 120
 aaaaacttga cactttttaa aaaaatttcc ttttttatgg cgggttgagg ggaggtttca 180
 ctgtgttgcc taggtgccc tcaaattccc gggtcaaag gatccgcta cctcaggctc 240
 cctagtagct gggactacag gcacatgcca ccgcacctgg ctctcccact cgag 294

<210> 1566
 <211> 203
 <212> DNA
 <213> Homo sapiens

<400> 1566
 gaattcggcc aaagaggcct atttaaacag caaactgtgt gcactcaact gttatcacaa 60
 tgtgtcaag aggtctgtgt cttttaccat ttacacaca attgttcatt acagtatgtt 120
 gtcagcctcg tggaaaccag ggggtgtgtca tggtaagcag tgggtgtagt gcacctagct 180
 tttatattat cacctgctc gag 203

<210> 1567
 <211> 241
 <212> DNA
 <213> Homo sapiens

<400> 1567
 gaattcggcg ccgcgtcgac atgcagcccc ggaaagagct agagacaggg aagaacgatt 60
 ggcagcactc acagctgctc aacaagaagc tatggaagag ttacagaaaa aaattcagct 120
 caagcatgat gaaagtattc gaagggaat ggaacagatt gaacaaagaa aagaataaagc 180
 tgctgagcta agcagtgggc gacatgcaaa tactgattat gcccccaaac tgacctcgat 240
 g 241

<210> 1568
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 1568
 gaattcggcc aaagaggcct ccgagatttt ggtgaaaatt aaattagata aacgatgagc 60
 agaattgtctg aacacatggt tggcaatcag aaagtatttt ctccaacctc cttccccaa 120
 cacacctctc aaaaaccttc ttttccatcc taccactcag ttcatctct cctggactac 180
 tgctctccga cagggttttc agccttttgt ctactactcc ttcaaaccat cccaaacctg 240
 ctattacaaa caacattcaa aaatcagaaa tttgatcatg gactccctg tcacaaatcc 300
 tccatgggtg ataacattca gaacaaatct gcattcagag aaagtccagc tgtccctcgc 360
 ctcgag 366

<210> 1569
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 1569
 gaattcggcc aaagaggcct acgtcgattg aattctagac ctgcctccag cccataggct 60
 aattgatatt cttaacgagg gaaggcaagc acctcatgaa aggttttgtt tgtgttttct 120
 tttttctttt tatctctgtt tctagagaca gcaaccttat cagtcacgca gatcttaata 180
 gactagaaag aagccaggag agtattaagg aactcttaac acaagagaat ctcgag 236

<210> 1570

<211> 184
<212> DNA
<213> Homo sapiens

<400> 1570
gaattcggcc aaagaggcct agcaagattg ttttctggga acagctgtat atgaaatgtt 60
gattctcagg gagacaccta gacacctgaa ttgcagcaga cattttatgg tgttgctaag 120
ttgctggtcc ttctcatcag tagcaggcct actctcactg tcacatatct cccacggtct 180
cgag 184

<210> 1571
<211> 184
<212> DNA
<213> Homo sapiens

<400> 1571
gaattcggcc aaagaggcct aagatagttc acaatttatt cegtgtatcc aagcctgcgt 60
aaacgggaat ttgctaaagc aaattgggaa ttggggatta actaaagga attgtgagaa 120
agagaaagaa caacttttaa gaagtatgtt aactgtcata ttttactta aggggctcct 180
cgag 184

<210> 1572
<211> 238
<212> DNA
<213> Homo sapiens

<400> 1572
gaattcggcc aaagaggcct acgagatgaa tttctatgca ttattggaaa ataaggacaa 60
agtcttecta tttatcatgt tgtggattat tgatggaaga tgctgtggat tggctcagtc 120
aacatccact tcacctcaa acaggatgac ctctctgcaa agcaaaagga atcccaaac 180
ctcttgacgc tatagtggcc aaaagcaatt tcagtctgc caaccagagg gactcgag 238

<210> 1573
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1573
gaattcggcc aaagaggcct agattgaaag tgatacaatt tgaatattgg tatattgtca 60
ttggtcagta atggaaaaat gagattccac cagtgggtta ctcttttctt gtcttggttt 120
gctatgcctt atcccagatc agtgttttgt tccatcccta tggatcatct taaagccctg 180
acaggagcat cccagactgg agaaatgcag caactcgag 219

<210> 1574
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1574
gaattcggcc aaagaggcct aatttgcatt cccttagagt cttctatttc tgtttttacc 60
aaagcagtct tcatcattga aagcagcaga gctgttttgc tcttaattaa ctaatttaat 120
aaaaaccagg gattttattc aatcttgaaa taattgcctt ctgtcgaaca gtttaaaatc 180
atacagttag caaaaattta agaataatct aaatgaaat tagaggggca ctcgag 236

<210> 1575
<211> 199
<212> DNA
<213> Homo sapiens

<400> 1575

gaattcggcc aaagaggcct agtgatctac ccccatctga gccgacaag ttttgagta 60
 atttattaga cagagataac taatacaaat ttttcagtgg acaatatatt cctgtttttg 120
 gatattgctg tcattggaag actgtgccag aaggtaaag aagggtgggtg taatgtttca 180
 tattagaaaa atcctcgag 199

<210> 1576

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1576

gaattcggcc aaagaggcct aagagaaaac gaacagagct cctttatata attgaatgca 60
 ttgcagggtta gctgaagtga aatcaagtca agaattattgt ctgaggaaat atcaagttac 120
 tgtaaaggta aatccatcaa gaatatctaa agtcagggag gaaaaaaaaa gaatttagtg 180
 tttatctatg tatgttactt catgattagt agatccaata tgagaattaa tgtggtgctc 240
 gag 243

<210> 1577

<211> 252

<212> DNA

<213> Homo sapiens

<400> 1577

gaattcggcc aaagaggcct atgagaaatt aaatgatccc tgcagagttc caaaagtgg 60
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 atcattttcca tgcattaga agataagtgt atctttctga gggctaaagg tcattgctgag 180
 ctagaagggt gcaaggctgg agaggaagg cctttctctc agcgtcagca aaggctgcgg 240
 gcagggtcag ag 252

<210> 1578

<211> 230

<212> DNA

<213> Homo sapiens

<400> 1578

gaattcggcc aaagaggcct agagagattg cttttctctg aatcatttca ttctagactt 60
 tcatcatttc ctgctaagtt gtaattgtac ctgtcttctc cttagtctct agcttatctg 120
 aattttattc tgttattgcc gcacaaatta ttatcaagtt ccactttggg ctgggcgcag 180
 tggctcacgg ctatagtcct agcactttgg gaggcgcagg cagactcgag 230

<210> 1579

<211> 233

<212> DNA

<213> Homo sapiens

<400> 1579

gaattcggcc aaagaggcct accttttttc ccccatcatt ttgcatctct tgccaaactt 60
 taaccttgca gttctccatc cctcatcaaa tgccatctc tgggatctgc ccattgcctt 120
 gtttgcttga ctaccatca tgccttagcat cttttgggca ctgagtcctg tttttggcct 180
 ctttacttgg acatcatttt aactgtcact ctctgaacac cttgaatctc gag 233

<210> 1580

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1580

gaattcggcc aaagaggcct aatttaaagt gctgctttgg attctctgga gcattatgca 60
 ttatagttgt tatccaaaga cttttttgaa aatatgcaga aatttggtgt aattatgtat 120
 ttgtgtcttg tgacaattat gttttataga cctacactag tgccaggcca ctattgtaag 180
 atgttaaaat ctcaagaaaa ttccacagat gcactcgag 219

<210> 1581

<211> 199

<212> DNA

<213> Homo sapiens

<400> 1581

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gaattcggcc aaagaggcct acgtcgattg aattctagac ctgataacaa aggcttgtct 60
tattctgat atcctatcat catctttacc aatttctggc aattatatcc ctgggcctaa 120
gttccattt ttgtatcctg cctcataccc caagtctctc atgaagtggg gtctgtcttt 180
gctctacaca ggactcgag 199

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<210> 1582

<211> 272

<212> DNA

<213> Homo sapiens

<400> 1582

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gaattcggcc aaagaggcct aattgaattc tagaccccc gccagcttcc cacacctcat 60
acgcagccac atctgcccta ttctccatgc ttccagctt gcctgccctt cctcatctct 120
ccctgctgt gcagacctc acccttctt cctccacccc tccatcccc aatgcttgta 180
gaccttccat tcattcgtc tcattcgtgc tggctctctga tcgtccatca cctgaccttc 240
tccaggactg tcttctcacc cttccctctg ag 272

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<210> 1583

<211> 408

<212> DNA

<213> Homo sapiens

<400> 1583

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gaattcggcc aaagaggcct aggagtggag gttcaggacc aaggggcttc tggctcctca 60
gccccgtgac tcggccatgc cctgcgggtca ctgcggttgc cggccctaatt tgtgccaaag 120
gctgaccgg cctgggctgc gtacaccctt gccctgtctt gccttaaagc ctcgggggtct 180
gccccgcccc tcgcccctgc ctggcactgc tcaccgccc aggcgacgcc ggctggacca 240
ggcactgctg gcctttctcc tgcccggcct cggaaaccagc ttttctctct tacgatgaag 300
gctgatgcc agagcgggct gtgggaggag ctgggtcagt cccgtattta ttttgctttg 360
agagagaggg accctaaacc gtcgattgaa ttctagacct gcctcgag 408

```

<210> 1584

<211> 266

<212> DNA

<213> Homo sapiens

<400> 1584

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gaattcggcc aaagaggcct atgtgaatac tgtaaaagt ctgtatgttt agtagtgttg 60
tgtgctggc agtgctgact atgactactg tgccatctgt ctgtgacctt gatgtcaggt 120
acctggccat ggggctacca gcaaggatgt gcaaaggaag aaccgctgcc cctgccctca 180
gtttccttat gcccagacca ctacttatcc gtgaatgtga gtgccaagag aaacetaatt 240
tgggtgggaa gccaaaggcat ctcgag 266

```

<210> 1585

<211> 298

<212> DNA

<213> Homo sapiens

<400> 1585

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gaattcggcc aaagaggcct agctgtgttg ccattagaac atttaaatga gtttcattct 60
gagttttgta ttgttaaact gtgtctggaa actaaacttt ataatgtgtt acattttagg 120
tcagaagaca tgtcttcac tacatggcat ctttcttac ctctatgtgc catagatgg 180
ttatggacag cagccagaaa gctatcttc tcagatggca ttcagtatcg acagagcact 240
taatgtggct ttaggaate catcttcac tgctcagcat gtgttgatga aactcgag 298

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<210> 1586
 <211> 276
 <212> DNA
 <213> Homo sapiens

<400> 1586
 gaattcggcc aaagaggcct agaataccat cgtaaacaag atataaatcc ttacatatac 60
 atgcttccca taccttttcc ttccattctg cttacgtaca atacttacct tgaaagttag 120
 cagtgaacac tcccagtcac catgcatagt ggaaagcttc aagaaataag aataataata 180
 aaaaagttaa aactataatg ataacttggc cgggcacact ggctcactcc tgtagtcccg 240
 gcgcttttggg gggccgaggc gggcggatca ctcgag 276

<210> 1587
 <211> 186
 <212> DNA
 <213> Homo sapiens

<400> 1587
 gaattcggcc aaagaggcct atggtagtct aagagagaac gtttaactct caattcctct 60
 tgcaggtagg cctcgaaactg ggcatacaata tattctacta tcggcttata gctgtcatct 120
 ttatttatct ggtctccaaa tcccacggtg tcaacaatgg ttaacttcag ccgtacattg 180
 ctcgag 186

<210> 1588
 <211> 427
 <212> DNA
 <213> Homo sapiens

<400> 1588
 gaattcggcc aaagaggccta gatcctcaca cctaagccat gttttaggct cagctacctc 60
 ctccatatca cagcagaagc tgcagtttca acagggttag tagcttgccc acaccttggt 120
 gactaagtgg gggcagcagg ttttgaatct ggggtgactg cagctggaac ccacatactt 180
 aatccatacc ctagaatcta ggtaggaaag agaacatgct ttatctgggg cccaggaaat 240
 gactgtggga ggcagtgcaa ggaattgagg ccagtggagt gggcaggagg ccaatgatca 300
 cggccccttg ttgcctttgc aatgcagttg ggtacatgtg acagtcattg aagaatgtca 360
 aaggctcagg atgagattgt atgacatgat cagacctgtg ttttagccag atcactccgg 420
 gctcgag 427

<210> 1589
 <211> 410
 <212> DNA
 <213> Homo sapiens

<400> 1589
 gaattcggcc aaagaggcct agacaacttc agcagtcggt acaagtcaca ttccattttg 60
 attgaatata tgatcttgaa cagctcctgt acttgctctt tgtaaaaaaa aataaaatta 120
 ttttgaatta ttctaccttt gtaacaatt ggctaaaaga atcatcttta agaaattaag 180
 ccatttacat gtttgtgttt ttctatagca gagcattata ttgtgatta tatgtttcaa 240
 ctagtctaa gtgggtcttt ttacatttt tcaagaacgg atttcttggg atacagcgat 300
 ataattttgg ttgtcaaatt cctaagtcaa ccatttagtc taaacttagt catttatttg 360
 tgacaataag atgtgttcag gggtccctg ttttaagag actctctgag 410

<210> 1590
 <211> 318
 <212> DNA
 <213> Homo sapiens

<400> 1590
 gaattcggcc aaagaggcct aggacatgag tgactgaagg aacgaatatt tggagtgggc 60
 aactaacatc aaaagagact ttcacattaa agtgagagat acttttggga gtagaattga 120

agttctttgc tctcttttgc ttgaaaagg cagatttctt taggcagtag ttaggaatag 180
 catcttgata tgagcaagat gaaacgtggc tgtcaaggga atcctctaaa atgcttttat 240
 ctcaactatga agctattttt aaaagttaca tgtttattac taattataat tttggttacg 300
 aaacaggaa aactcgag 318

<210> 1591
 <211> 208
 <212> DNA
 <213> Homo sapiens

<400> 1591
 gaattcggcc aaagaggcct actctctttt aaataaactc cattcttccc attccatgat 60
 gtcctctaac tctgtctcgc ctttttctgc tctgtttat tctcccctca ctccctgtct 120
 cctggcattg ttcactccgc tgtgtccat tgccagaacc gtggaggaaa cccctccccg 180
 ctgcagccca cccctctctt tctctgag 208

<210> 1592
 <211> 303
 <212> DNA
 <213> Homo sapiens

<400> 1592
 gaattcggcc aaagaggcct agacagttca actagaagag actggttaaga gattgcagtt 60
 tgcagaaagc agaggtccac agcttgaagg tcttgacagt aagagctgga aatccattgt 120
 ggttacaagg taggaacaga gttttaaact tgtacaaagt ttaatcattt caaatttttg 180
 cattgtttta aaagacaaca ctattcttga taacctggtt tcttctgat gaacagtttg 240
 tttggttgtt gttttaacat aatactttt tctgttgta gtattgttg agactctctc 300
 gag 303

<210> 1593
 <211> 189
 <212> DNA
 <213> Homo sapiens

<400> 1593
 gaattcggcc aaagaggcct actttaatgc ctttggcctt ccattctgat ttctctgatg 60
 agaattatgc tggccctgct tccctggtg ggtatttgc aggcccaatg ctttaacctt 120
 aagctgatac tttgctttag atgtcagtct cgttaccagc agccttttga cccaacaacg 180
 gcactcgag 189

<210> 1594
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 1594
 gaattcggcc aaagaggcct agtaaaaatg aaaatgaaag atacatactt tatgccattc 60
 atttgatga atataggaaa gcacttgaac ttttggcctg tctgtggtcc ttcagaattg 120
 ggcagtggaa catcctgttg gaagcactgt catgtgggta cctcagagcc tgccctctct 180
 tttcagcctt acctcactgc acagctccag ccaaagggcc acgtgcacca aagggtcaca 240
 cctgaccagc ttttaatcat tccatacact gaaatgcctt cactcctega g 291

<210> 1595
 <211> 416
 <212> DNA
 <213> Homo sapiens

<400> 1595
 gaattcggcc aaagaggcct atcccggagc aagcgggcaa agctgctcaa aaaggaaatt 60
 gcccttctcc gaaacaagct gagccagcag cacagccagc cctgcccac ggggcccaggc 120

ttggaaggct tcgaagagga cggagctgcg ctggggcccg aggcgggcga ggaagtcctt 180
ccgaggttgg agactcttct gcagccaagg aaaaggctgc ggagcacatg cggagactcc 240
gaggtggagg aggagtcccc aggaagcgc ctggacgcag gtctcacaa cggctttggg 300
ggtgcgagga gcgagcagga gccgggcggc ggccctggga ggaaggccac accccgacga 360
cgctgtgcct ccgagtcag catctctcc agcaacagcc cgctctgcga ctcgag 416

<210> 1596

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1596

gaattcggcc aaagaggcct aaaaagacat ggagaaatca ggtttttttg gtgaaaataa 60
acatcaatac ccattttgac gtgaatatct aaagtgttat gaaaccaact acatatattt 120
ttaaatgct ggggctcata cgtgaagggt gaggactgtg ggcaatttg gaaagattct 180
ctacatttaa agattattta agggactggt attatatgca caggataggc taaataatca 240
gtcacacag attctggagt gaactgggga gaagtatggg atagtgcaga gctcgag 297

<210> 1597

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1597

gaattcggcc aaagaggcct agttgaactg tgtgttatct gattctaaa ctcgtgactg 60
ttccacaca tcttgacctc cgtttgtgaa tataaacaga gacatttaga tgagcatgtc 120
taattgtcat attaaactca gaatttggag actcttgagt ttctttcttt ttctttttt 180
tttgagaca gagtctcgt ctgtcccaa gctcgag 217

<210> 1598

<211> 403

<212> DNA

<213> Homo sapiens

<400> 1598

gaattcgcgg ccgcgtcgac cataccagaa ttttaggatt ttattttacc ttctaataa 60
taattagttc taaatgtgtg ttaacccttt ttcccccaa ttaagggtt tgtgttttca 120
tatcttatct ttttgattg ctcttataat aatgaactct tctgtatag gtatgaaatc 180
accagaagaa caactggtgt gtgtgccacc acaggaggcc ttctctaacy acccccgggt 240
aataaataga cagagaagtt ctgattacca gtttccatcc tctccattta cagacacact 300
aaagggcacc actgaggatg acgtgttgac aggtcagggt gaggagcagt gtgtgccagc 360
agcagaggca gagccgcctg cagtgagcgt aaccacgtc gag 403

<210> 1599

<211> 117

<212> DNA

<213> Homo sapiens

<400> 1599

gaattcgcgg ccgcgtcgac ggtgtagatg atgtttgggg tcaatttctt ctctgcctc 60
ttcacagtgg gctcactgct agaacagggg gccctactgg agggaacca actcgag 117

<210> 1600

<211> 103

<212> DNA

<213> Homo sapiens

<400> 1600

gaattcgcgg ccgcgtcgac cgagcatcct aggatatcca aaaggctaga gtttgagag 60
gaaagttaat ctattatga agtttaggaa aggcacctc gag 103

<210> 1601
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 1601
 gaattcgcgg ccgcgtcgac atcacgaggg cttcccttca gagagctgac aatattaaca 60
 gcacagagaa tactaggtct gttgattaaa actcaaggct tcatactgta agggcccacaa 120
 aggaagcatt aaattgggcc ataggaagga caagtcacat ccagtttagt gatcaatggt 180
 ggtttgggaa agaaataaca gaattctacc cctacatgat agggagagac tacagaggcc 240
 acctagacca acaaactctg ccatcaggct cttgaatcat tgctaccatg tcctgggtgt 300
 ggtttagca ttgctagtga tatgtaactc attacctact tatgcaaacc tcgag 355

<210> 1602
 <211> 613
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (592)..(601)

<400> 1602
 gaattcgcgg ccgcgtcgac aaggagataa atatcttgcc ttagtcatta caaagcaata 60
 tcttgatagc taaatgctaa tctggggccc gggcagtttc aactagaat atacgtaaga 120
 ttccagaaag aactcatacc agtttggtct tatgtctttt ctttaagttct tactgtgatg 180
 atatggttca ttaaaattat tttttttctg atacattcta attaacatga aatcctttat 240
 gtactgcact agcttttaaaa aataataaca attttaagag actccaatga acattaatgc 300
 atttttttat ttatgcacag caattatatt ccagaagtga gaatcatgtc aattcccaac 360
 cttegttaca tgaaggttag taccttgctc attaacagga agaaaaaggg attgatcaat 420
 gatgtgtgta catgtgtatg tgggtggcag tgtgtgtatt tggcacagga tccagtgcag 480
 aagggataga aaagaagaca gtttgggaca ataaagacta aatttgttga cactgagatt 540
 cttgacaaca gcactgtatg aaaagttagg agaaggagca ggtgacacat tnnnnnnnnn 600
 ntgagtactc gag 613

<210> 1603
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 1603
 gaattcgcgg ccgcgtcgac gggcgaggct ggactggaag gtaaaaggct tgccagagtc 60
 ttgggagaag agaggtccca gtggggactg gtacgtgtca gcctgtccac actgcttctt 120
 caggtgggta cagtaattgt gagcgacctg cgtcacaggg tagatactga actggcagag 180
 agcaccttca aactggactg catgcgggtt catcttccca aagagggaag agccccagg 240
 gtcgagtga gggctccctg tggaaaggca gcaggacagg caccggcgcc tgcccgagg 300
 cagtcaccag agtgactgtg cggcatcgga gctcgag 337

<210> 1604
 <211> 458
 <212> DNA
 <213> Homo sapiens

<400> 1604
 gaattcgcgg ccgcgtcgac cttggaactc cgttatccgc gatgcgttct ctggcagcta 60
 cattctctgt cctggcgctc agcaccgctg cccaggccga accggtgcag ttcaaggact 120
 gcggttctgt ggatggagtt ataaaggaag tgaatgtgag cccatgcccc acccaacctt 180
 gccagctgag caaaggacag tcttacagcg tcaatgtcac cttcaccagc aatattcagt 240
 ctaaaagcag caaggccgtg gtgcattgga tcctgatggg cgtccagtt cctttccca 300
 ttcttgagcc tgatggttgt aagagtggaa ttaactgcc tatccaaaaa gacaagacct 360

atagctacct gaataaacta ccagtgaaaa gcgaatatcc ctctataaaa ctggtggtgg 420
agtggcaact tcaggatgac aaaaaccata gtctcgag 458

<210> 1605

<211> 416

<212> DNA

<213> Homo sapiens

<400> 1605

gaattcgagg ccgcgtcgac cttaaaagtt atagatttgc aaatttcaaa gaaagccgtc 60
ttatttaatt gatatttga aatttataac tcaccttca gtggaatagt ttttgtaaatt 120
tcattgagaaa gaaacaaaat atcaatttat agtagttgat ggtgttataa atccagaaga 180
agctctataa cattataaaa atcaagattg gttgtctaca ttttagagta ccaaaggcag 240
caaaatgatg taatttataa ataataaact ttaaaactgt gataaaccaa actctgaagt 300
atttttaag aggtttattc taagccaatg agtgaccata gcccaaggag cagtctcaag 360
aggtcctgag aaagtgtgca ctgggtgttg gagttacatt ttagggagta ctcgag 416

<210> 1606

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1606

gaattcgagg ccgcgtcgac cctaaaccgt tgattgaatt ctgacctgc ctcgagtcca 60
ggatattgac ttctgaattc ttaagttttc ttcttccag ctctatgagg ccaactaata 120
ctctatcaat gttattggcc ctcatcccag gcaaacctca gcttctcagc tttttgctt 180
cccagaatca gcaatacat tcagctaaga aaaaaaaat agctgcagca catcagctcg 240
ag 242

<210> 1607

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1607

gaattcgagg ccgcgtcgac aatcaggaat ttgaagaaaa tggaaatgtt tacatttttg 60
ttgacgtgta tttttctacc cctcctaaga gggcacagtc tcttcacctg tgaaccaatt 120
actgttccca gatgtgtgaa aatggcctac aacatgacgt ttttcctaa tctgatgggt 180
cattatgacc agagtattgc cgcggtggaa atggagcatt ttcttctct cgcgaatctg 240
gaatgttcac caaacattga aactttcttc tgcaaacat ttgtaccaac actcgag 297

<210> 1608

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1608

gaattcgagg ccgcgtcgac cattgacttc ttctaccggc cgcataccat caccctgctc 60
agcttcacca tcgtcagcct catgtacttc gcctttacca gggatgactc tgttccagaa 120
gacaacatct ggagaggcat cctctctgtt attttcttct ttcttatcat cagtgtgtta 180
gctttcccca atggtccgtt cactcgacct catccagcct tatggcgaat ggtttttgga 240
ctcagtgtgc tctacttctt gttcctggta ttctactct tcttgaattt cgagcaggtt 300
aaatctctaa tgtattggct agatccaaat ctctgatag ccacaaggga agcagaagtc 366
ctcgag 366

<210> 1609

<211> 120

<212> DNA

<213> Homo sapiens

<400> 1609
gaattcgcgg ccgcgtcgac gtgcattata gtgatttcag tagattcaca ctcaaatctt 60
ttcagtgta tacatttatt aagccataaa gttatgaaac cctcagctct tgtactcgag 120

<210> 1610

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1610
gaattcgcgg ccgcgtcgac tgacaccttt ccccaaatat agattacaat aaagaagget 60
actaatgca tctgaaaagg tggatcctga ctactgttag gctagactcc ctaagctccc 120
actatgccca gctaatttgt ttttgtattt ttagtagaga cagggtttca ccatgttggc 180
caggctggcc tcgaactcct gacctcgag 209

<210> 1611

<211> 230

<212> DNA

<213> Homo sapiens

<400> 1611
gaattcgcgg ccgcgtcgac attctagacc tgcctcgagt ctaccagga ctgcttgctc 60
tttcttaaaa ccttaagcta actgtaggtc atcattcaca tgccaaaaat ccagccatgg 120
cttctctttc aaaattaaca gtgaatatct tatccctagg cccattccta ctctccagcc 180
ttaaccttct tcccttctgc cactgctatc aagaacccgg cccactcgag 230

<210> 1612

<211> 387

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (380)

<400> 1612
gaattcgcgg ccgcgtcgac tgggccttta gaagacttgg cttcttcaact ggagagcttt 60
tattcaggag gctgctagca ccagtcctcc ctgcggcctt gccaaagagga gagtgctgaa 120
aggggtgcac ctctgtgtgc gggctgactt caccgtcacc tgggttcttc tccttcaggg 180
aaaagggttt cttattgggg cttattttct tctgtgtcca aaagatagcc atgtctttat 240
gcaaaactttt ccccttcttt ctagccaggg ctgcagatgc atgatcaaag aaatgtacca 300
ctgcaagctt tttgtctgac ctggtaaaga tgcgtgcac tttagcaatt ttgccaaaat 360
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<210> 1613

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1613
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aaatcagtaa cttttataac accgttgtgc caaaaaaag ccttacttta ttactttatg 180
tgcattgtct cattaatata ttctagtgtc tgtgattgtc aggtcagcac tgtcagccac 240
ttcaagaag aagagaatag gggagatctc gag 273

<210> 1614

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1614
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 cctctgaagt gatcctgata ttttgccaaa gttgtgactt taatattctg cggcttgtaa 180
 ttgtgatttt tctaatacca gactagaatt ctggggagga atttttctaa acccaaatac 240
 ctcaatttga agtgaggctt ggctttaaat aataacacat ttgagtttga gcttttctctg 300
 caattaagtg gtatgctgca aaaaggaatt cggtttagcgc tcgag 345

<210> 1615

<211> 288

<212> DNA

<213> Homo sapiens

<400> 1615
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 cttgtctata gtcttctgtt ggtttgctgt ggtctgcttc agaccctagt tgcctcagtt 180
 tttcccatat ctgaaggat caccagtga agctgcaaaa catcaaagat ggcagcctgc 240
 ttcttctctt gcttcttctt cgcgcgagct catgctgtta atctcgag 288

<210> 1616

<211> 163

<212> DNA

<213> Homo sapiens

<400> 1616
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 agatatgcta attatctctc ttttatcatt acactttata caaatgtatc aaagtttcac 120
 actggctggg ccggtgact cacacctgca gtcgaactc gag 163

<210> 1617

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1617
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 tggctaatta ttaagataat ataaacttgc attaataaat ttaatgagaa agtggttagg 180
 ctatgtgtgg cagctcacat ctgtaacccc aacactttgg gaggtgagg caggagaatc 240
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<210> 1618

<211> 368

<212> DNA

<213> Homo sapiens

<400> 1618
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 ttgcttctct tattctccag ttcccttcca atcccccctt aettctctt actccctcc 180
 cccaggtcag tgcctggcgt ttctctcttc tttctgttct cccatccctc cgggcagctg 240
 tctctgtctg gttctgtctc ctgctctccc gccctctac acgcaccgcg ctgttgettc 300
 tctcattctc cagttccctt ccaatccccc ttcacttctc tttactcccc tccccaggt 360
 cgctcgag 368

<210> 1619

<211> 108

<212> DNA

<213> Homo sapiens

<400> 1619
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 atagacgggtg gcttaagcaa cagaatgtat tttctcacac tactcgag 108

<210> 1620
 <211> 287
 <212> DNA
 <213> Homo sapiens

<400> 1620
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 gtactgctct aatgttaaag tcaccttttg cattctcttg gctaggagtg aggggaactg 120
 ggaagaatga attcctgaca cacttttctt tgggtttttt ttggctttt gcagtgcctg 180
 catctaccta cagcccgctc ccagggggcca attacagtc cactccctac accccctcac 240
 ctgtcccccac ctacactcca tcccagcag cagcctatac cctcgag 287

<210> 1621
 <211> 129
 <212> DNA
 <213> Homo sapiens

<400> 1621
 gaattcgcgg ccgcgtcgac ggttccccct ttccccagtc ttaacaacaa aaaacaaaaa 60
 accagccttg agatctacat tgtgatgctt ttaataact tgactcctt cttggccagc 120
 tgtctcgag 129

<210> 1622
 <211> 336
 <212> DNA
 <213> Homo sapiens

<400> 1622
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 tgttttccaa aatttggttg taaagctttt gtttgatat tcaaatattt ttccccctga 120
 aacaaatata tctacttagt aaatatctgt ggaattatct ttaagctat gagtagcaaa 180
 aaagggtggc ttgtgtcacc cacttacc ctcctcttta gctcotgggg cagacatctg 240
 gaattcttcc tagcactctt cctgctgata ccagatacaa ctgcagtagt tcataacatg 300
 accctgcagg tgcccacaac caaggcatta ctcgag 336

<210> 1623
 <211> 301
 <212> DNA
 <213> Homo sapiens

<400> 1623
 gaattcgcgg ccgcgtcgac ggattaccag cactcaggc cacaagcat ccacagcgg 60
 ggcgtcctaa ctgtggacca cctctgctgg cgtgtgggca gtgactccca cattcagcgg 120
 gcgccacac cacccaatat gcatgtttgg ggtgaggcac ttgttctgga ctcttcaca 180
 ctacagggtg gtataacca gcctctgggc ctgtccagca ccagtcaga tacccttttt 240
 cttgattgta ccattcaggg acttcagggt gaagcatcag atacctgtgc ccacactcga 300
 g 301

<210> 1624
 <211> 202
 <212> DNA
 <213> Homo sapiens

<400> 1624
 gaattcgcgg ccgcgtcgac tggagatgag tccttggttc caattcatgc tgtttatcct 60
 gcagctggac attgccttca agctaaacaa ccaaatcaga gaaatgcag aagtctccat 120

ggacgtttcc ctggcttacc gtgatgacgc atttgctgag tggactgaaa tggcccatga 180
aagagtacca cagaaactcg ag 202

<210> 1625

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1625

gaattcgagg ccgcgtcgac ccacatttcg tttgtgtctg tttccaccat tcatagaaac 60
cttggaaaca ctctcacagc aatgctagga tgtttcatgg acctgttaag ctttttgatg 120
atacaagaca tctatcaat gccagtctta ttttcgctag gactctgctt ccacagtaag 180
ctcctaaggt gtcacccaa cccaggagaa aagctcgag 219

<210> 1626

<211> 389

<212> DNA

<213> Homo sapiens

<400> 1626

gaattcgagg ccgcgtcgac gttgcagacc tcataatgac gctgacattt ccatttcgaa 60
tagtccatga tgcaggattt ggaccttggg acttcaagtt tattctctgc agatacactt 120
cagttttgtt ttatgcaaac atgtatactt ccacgtgtgt ccttgggctg ataagcattg 180
ctcgtatctt gaagggtgtc aagccatttg gggactctcg gatgtacagc ataaccttca 240
cgaagggttt atctgtttgt gtttgggtga tcatggctgt tttgtctttg ccaaaccatca 300
tcttgacaaa tggtcagcca acagaggata atatccatga ctgctcaaaa cttaaaagtc 360
ctttgggggt caaatggcat actctcgag 389

<210> 1627

<211> 265

<212> DNA

<213> Homo sapiens

<400> 1627

gaattcgagg ccgcgtcgac cacatagaga cttaatttta gatttagaca aaatggaaat 60
tatttcatac aaactattca ttttattgac tttagccact tcaagcttgt taacatcaaa 120
cattttttgt gcagatgaat tagtgatgac caatcttcac agcaaaagaaa attatgacaa 180
atattctgag cctagaggat acccaaaagg ggaaagaagc ctcaattttg aggaattaaa 240
agattgggga cgtctcgaac tcgag 265

<210> 1628

<211> 232

<212> DNA

<213> Homo sapiens

<400> 1628

gaattcgagg ccgcgtcgac gcatctcgta agagtaagaa tagtttagata ttcttctgtg 60
ttatcttagt accattacca catctgagaa aattagcaat aattgttcag ttttctctcc 120
aatctctatt caaaattgtc ccagctctat tttgtgggac ttgaaaaaaa tcagataaag 180
cagataaatc aaatacatat catttatgca ttgtattgtt aggtgtctcg ag 232

<210> 1629

<211> 483

<212> DNA

<213> Homo sapiens

<400> 1629

gaattcgagg ccgcgtcgac ggaggagaat gagtatgta atgaagataa aaagaagtga 60
catctcttgt aactgaact cacagaacat ttgtttacaa ttctgtgtga ctgtctgctt 120
ggagtttaca tatcaagtt ctgggctgtt tggtaacgta acgtttccaa acattttgtc 180

tggccaatgg gttctataga aaagtcggt tagtgtagag aaattgaaa cagatctatt 240
 aggtgtgtgc aattgctttt gcaccaacct aatatttgat ggcagtgggt tatcatgata 300
 taccttttat gaattaatgt ttataaatga ctgtactgaa tttaaaaccg tacagtttca 360
 tttgcatttt gacattactt tattatacat tttgcattta aaaggctgca ccagttggct 420
 tttcttctgt tttattctca aaatatagag attctgtgat ttatttgcce tgttctgctc 480
 gag 483

<210> 1630

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1630

gaattcgcgg ccgcgtcgac taaaaatagg tttttaaat ttagctaagt ctttaagtaat 60
 ttgccgttgc taataatttt atctccttga gtcgggtgtt ggggagagat tttatattca 120
 ataattttt gttattttgt aatgcagagt gttatttcat ttcacagttc cgcaatggat 180
 gtagtatttt gggattgccc tgtccagaaa attttcagct acacaccttt aaaggaaaat 240
 gtttctatct cagatgaaac atgtaatttg ggatggctcg ag 282

<210> 1631

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1631

gaattcgcgg ccgcgtcgac gagaatagtt cacaagtaag aattaaaata taggcccgtt 60
 gttccatttt agtgggggtt gatacaaagc acccagaaag taaatgcttg agaatagttc 120
 acaagtaaga attaaaatat aggcccggtt ttccataatg aaatcctata atttggccat 180
 aaaactaata tttttaatta tttgcataat tggattaggg agcaagggtta aagctgaadag 240
 actcgag 247

<210> 1632

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1632

gaattcgcgg ccgcgtcgac aaaaaagtc gttgtattgt aactcccttc ctacagacac 60
 ctcccctatg aataaaccca gaataaggat gacatttttg gtaaaactat tcaactatct 120
 aatattacac attttccctg atatctgtag atctggacaa aaactaggtta aaaatctagt 180
 tcaagtatcg tgtaacttac agttatgcac cacctacca cgtttcaatt atttaacaat 240
 ggactcactc gag 253

<210> 1633

<211> 388

<212> DNA

<213> Homo sapiens

<400> 1633

gaattcgcgg ccgcgtcgac ctgagattga cataatggtc agagaatcat ctgaggtctg 60
 tctaattctc tatataaggc ggtatagcag atgtaacaag tatactctta actacagtgt 120
 taaaaatgaa tggaaggact cagagtagtt gcttggagga tggtttggag gggagcaaag 180
 taaatacagg gagaccagt agggagccct ttttcaggtg agagcttata tcttttgaat 240
 taggggttat gttgtagaga agatagatgt agaaggaaat gaaagaattt ttagggatat 300
 gtcaaaaata actcctctgt agctttcaca attgggggtt tgttgcctgt gaaggggagt 360
 ggtggttaag ttggaggctt ttctcgag 388

<210> 1634

<211> 306

<212> DNA

<213> Homo sapiens

<400> 1634

gaattcgcgg ccgcgtcgac atactgatca cgtgggatgt tgtttgccta cagggttaact 60
 tggagggggtc aggggtgcgta gtggcccaga gcatgggtccc cagtgccccac ggatgagacy 120
 gcgtgtgtgc tgtgaccttg ggcaacttag catcgctgag cctcagagtc agtgtgtaga 180
 attatctaag gggcttgta caagatgccg gcttcccacg gcttttgtca gtactcagtt 240
 aatctgctgg tgcttgtaaa gcacctgaaa cagggttttg ccttcagaaa atggcagcta 300
 ctcgag 306

<210> 1635

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1635

gaattcgcgg ccgcgtcgac aagtcctttg ccatgaggaa aaagtggttt ttgtctcat 60
 atggttaaate tatattatc atattgaatg tattaacaga taatgggtgca aaagcattct 120
 tcccagggga agagtgtatc atgcataact gcaatttaag tcttccctt gataatactt 180
 caaacatatac acagctactc gag 203

<210> 1636

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1636

gaattcgcgg ccgcgtcgac ctcaagatct ttgcaaatgt ttcttgtctg gatccccctc 60
 ctcttctgt caacttttct cctagttacc tcttacaate cttcagaact cagatgcada 120
 tcactttctc aaggcctcaa ggaagccttc tgtggccctc cggaaacagat caagttcagg 180
 ttcttgctta ttaccctcac taaactcgag 210

<210> 1637

<211> 183

<212> DNA

<213> Homo sapiens

<400> 1637

gaattcgcgg ccgcgtcgac ccggagtact gttggctacc cctctgcttt cattccaaga 60
 ttttttcttt atctttgatt ttagatttta tgcagtttaa atatgatatg cctaggtgta 120
 gcatttgggg ctttgtgtgt gtgtgtgtgc gcgcgcgcgt gtgtgtgtat gagagagctc 180
 gag 183

<210> 1638

<211> 241

<212> DNA

<213> Homo sapiens

<400> 1638

gaattcgcgg ccgcgtcgac gaataatgaa accaacgaat catctggatg ctttttatta 60
 tcatcctgca gctgaaatc taaacaatat cagtgatagc atactcccga ttggggatca 120
 gtatgaagaa ctgtgcctgc acagaaagcc ctcaagtgc tgtctcctgc tattattttt 180
 ccttgaagtt ccatttctca tcattgactc aaaatccttc acgggcccc tactgctcga 240
 g 241

<210> 1639

<211> 272

<212> DNA

<213> Homo sapiens

<400> 1639

gaattcgcg cgcgctcgac cagttttaca agtgcacagt gtgacaagta taccacgtgt 60
gaggttggcg ggaccagtct atgaggacag gaaagaacag tatgtgggca tctttatttc 120
cattagtcac tttttcattc aacaaataca tgttatgcaa tgcagccttt tgggtgttgt 180
gctgggcaga taaaagacac atcccacagg gtcttgcctt taaggattct ccagtcctgt 240
ataataatat gccaaaaacc acagcactcg ag 272

<210> 1640

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1640

gaattcgcg cgcgctcgac ggtcaggcg gaaaacggtc ataaaagtat ccaagtaagg 60
aaaagggaaa gctgggtaag gctgcaagcc ctccggaacg ggcggcccat gcaggccttc 120
cgggtcagtt ccgggggctg cgtattctct tccgggtgag gtccgggctg ggaggggaaa 180
agctgggacg aggtaaaggg cctggctggg caccatggcg gcaggtagga aggtcgggct 240
cgag 244

<210> 1641

<211> 555

<212> DNA

<213> Homo sapiens

<400> 1641

gaattcgcg cgcgctcgac cttecgactgg aagtcgcagc tggtcacca ccgcaagggc 60
caccggcccg aggttccatg agcagccaga cagcacagtc cctcggggcc tcggtgttct 120
cggggcctgg atacagcctc tggggcacca gcagaagact ctggaggcag caggggatgc 180
cagagtgaac aaggggtccc aagccagttc cctgcccctg gtctggcttc ccccaaaaga 240
ctgggtgcaa ggaaaggag ctgctctctc tcttcttgcc cctgcctcct agagggaggt 300
ctgggttccc ttctatggct gaccagtgc tgtgggtga ctgccaagca ccaggtccc 360
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aggtgggtgt tcaaaaactg tgccttccca ctgctctgtg cagaggctgg gcctgaggtc 480
tcagtgtgga ggcagcaga agaccagga aagcacagtt ggcttccgtt tctcctgctc 540
ccctgtatgc tcgag 555

<210> 1642

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1642

gaattcgcg cgcgctcgac attgaatgta tgtctttata tactttttac tgagattttt 60
ctgttttatg gtatatactt taaatttttt atttatttca agtgtgttca taattgcttg 120
ttgaaaggtt tttatgatag ctgctttaaa aatctttgtc atctttgtgt tagtgtgttt 180
tgttgtgtgc tttctcatt tagttgaggt tctcgag 217

<210> 1643

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1643

gaattcgcg cgcgctcgac attttatatt tgggtgtattt aaggctacca aagaaaaaag 60
aatatcgaaa tagatttata tttatgaatt tcattgctgc cctaaacttac tgccttattt 120
tctccatcct ccagcttgg atgactccta ttccaagtc tcccacccc tcaggttgca 180
taggagccct tagtctactg cattcctcca gtgcagcact cgag 224

<210> 1644

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1644

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 ccattgacat ttaaaaaaat aatgttttat ggtggaatat tttcaaaaa atactgcttc 180
 atcagtgttt ttgcaagtc tttctctgtg tttcttctat tttctctaa aacaagcaa 240
 aatctcgag 249

<210> 1645

<211> 479

<212> DNA

<213> Homo sapiens

<400> 1645

gaattcgcgg ccgcgtcgac gggagggcct tgggttttga gctcagtgtt ctgggattca 60
 tatctagagc tctcagattc atagccaggg ctccgggggt cataccggg gctccgagg 120
 tcatagccag ggctttgggg ttcataccta gggctctggg attcaaacct agggctctga 180
 gaattcgatt cagggtctct ggggtgcaaac tcagggtctg ggggcacaag cccagggtct 240
 cgggactcaa accccggggt ttcagggtca aatctggggc tttgggggtt aaactctggg 300
 ctttgtggct caaaccagg gctctggggg tcaagcccaa atgggtatct ttcgacttca 360
 tagtcccccac tgccttcttg ctgagaaatt tctcttctct cattctcact catgttgct 420
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<210> 1646

<211> 235

<212> DNA

<213> Homo sapiens

<400> 1646

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 atccctcaga aggaaagtc ttaactttca catattaata ttagtaaat tttcttgcct 120
 ctaaaagtga gagtatcaca cctaaatga acactgtcta ctaagagaca tcattccatt 180
 tccacaaatg aagattttat tccaagaac gagtttactg attggagcac tcgag 235

<210> 1647

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1647

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 ctggggctgt gggggaactc cttttcagga gggcagcctt catccacaga tgcctctaag 120
 gcttgggaatt atgaattgcc tgcaacaat tatgagacc aagactccca taaagctgga 180
 cccattggca ttctctttga actagtgc atctttctct atgtggtaca gccgcgtgat 240
 ttcccagaag atactttgag aaaattctta cagaaggcat atgaatccaa aattgattat 300
 gacaagattg tctactatga agcagggtatt attctatgct gtgtcccag gctcgag 357

<210> 1648

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1648

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 tctgggttat cagaaaaaga tgttaaaaca gaaatgacc ttctgccag tgacttgtga 120
 atgctttctg tgtttgggtc tccacctaac aaagtgtctg tttttgccct accaagtgt 180
 agctttgggt gggacgaggg aactcgag 208

<210> 1649

<211> 153

<212> DNA

<213> Homo sapiens

<400> 1649

gaattcgcg cgcgctcgac gcctctataa atctgagtat tgactgctaa aagtcaatat 60
 ctgctgttca ttcagaaaat gagggtagt aacttgagta gcattgtttt tcttgccctt 120
 tcactccac cccaggccct ggcagtgtc gag 153

<210> 1650

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1650

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 ctgaaccac tgacggtacc atgagggctt tcattttctt tcttttcag ctctggcca 120
 tgttctcagc atcttcaacc cagatttcaa ataaccagt cttcaacta gaagagaatc 180
 caaacctgc acttattctg gaggaaaaa atgaagctaa ccacttagga ggacgactcg 240
 ag 242

<210> 1651

<211> 286

<212> DNA

<213> Homo sapiens

<400> 1651

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 ttggcacctg agtatatatt agaaaactat gcaataata attgcagctt ttgccagagc 120
 tcaatttgc acttcagaga ttatattgct tataaccac ctgcaactg ctgctgtggc 180
 actgactggt attccagtg tccccatag tagttcta atagggtacta atattttaat 240
 aatatttgaa ttcctttgtc ataataatg tgccaaccaa ctcgag 286

<210> 1652

<211> 221

<212> DNA

<213> Homo sapiens

<400> 1652

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 aaacctttcg acttggtggc tatactatc aatatggctg tatagctcat tggcttttg 120
 aatacgttgg tgggtgtgtc atgtgttctg gaccatcaat ggagcctaca attcaaaatt 180
 cagatattgt ctttgagaa aatcttagtc gatctctcga g 221

<210> 1653

<211> 319

<212> DNA

<213> Homo sapiens

<400> 1653

gaattcgcg cgcgctcgac ctatgttgc tgtctgaata acataataat atatagcaat 60
 aactttttca ttgatttgaa taaatctart gcatagaaat aggtgacta ttgtagtgg 120
 cccagacttt atttaagaa aagcagttta aatagattc atcacatatt tagtttttaa 180
 tccccaatc agttttctt gtttatagca atcaaatat taaatatatc ctattatact 240
 atttttaac ccctattccc aaaagataag ggaatttgaa agactgtgga aatgatttt 300
 aggacgggca tacctcgag 319

<210> 1654

<211> 319

<212> DNA

<213> Homo sapiens

<400> 1654

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gaattcgcg cgcgctcgac tgccaatgtt ccatcggtgt ggaatcatgg cactgggtgc 60
agcatacctc aactttgtaa gtcagatgat agctgtccct gcattttgcc agcatgttag 120
caagggttatt gaaattcgaa ctatggaagc cccttatttt ctaccagagc atatcttcag 180
agataagtgc atgcttccaa aatctttaga gaagcatgaa aaagatttgt actttctgac 240
caacaagatt gcagagtcgc taggtggaag tggatatagt gttgagagat tgtcagttcc 300
gtatgtacca ctactcgag 319
```

<210> 1655

<211> 233

<212> DNA

<213> Homo sapiens

<400> 1655

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gaattcgcg cgcgctcgac aggtttctga gacatctttg gtttctaata tcttccatgt 60
caacacggat gatcacaggg tctatgttac cgttgcttca ggtgatatcc aggggttctc 120
ctatgtcttt tgaagattct agtcgaatca tcccactctt ttatcttttt agctccttgt 180
ttagtcatte actaatttcc atacatgata acgaattcta cggtgatctc gag 233
```

<210> 1656

<211> 585

<212> DNA

<213> Homo sapiens

<400> 1656

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gaattcgcg cgcgctcgat ttagcctgga acagagcggc actcggcctg agcggctgta 60
tatccagggtg ttcttgaaga aggatgactc agtgggctac cgggctttgg tgcagacaga 120
ggatcatctg ctacttttcc tgcagcagtt ggcagggaag gtggtgctgt ggagccgtga 180
ggcgctccctg gcagaagtgg tgtgcctaga gatggtggac ctccccctga ctggggcaca 240
ggccgagctg gaaggagaat ttggcaaaaa ggcagatggc ttgctgggga tgttccctgaa 300
acgcctctcg tctcagetta tctgctgca agcatggact tcccactctt ggaaaatgtt 360
ttatgatgct cggagacccc ggagtcagat taagaatgag atcaacattg acaccctggc 420
cagagatgaa ttcaacctcc agaagatgat ggtgatggta acagcctcag gcaagctttt 480
tggcattgag agcagctctg gcaccatcct gtggaacag tatctaccca atgtcaagcc 540
agactcctcc tttaaactga tggtecagag aactactagc tcgag 585
```

<210> 1657

<211> 340

<212> DNA

<213> Homo sapiens

<400> 1657

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gaattcgcg cgcgctcgac tcatattggt ccccatgga cagcttttcg tctctaatac 60
catacactca gtgcagggtc tgaatgtccc cccaaactca tatgttgaac tccaaatccc 120
caagggtgtg gtattagatg atgtagcctt tgggaaggaa ttagggtggt gccctcatga 180
atgggatttg tgtcattata aaacaagccc aaagaatttt ggtcacccct tcttttaage 240
gaggtcatgg caaaaagacg ctgtatatga accagaaaat gggctctcac tagacaccaa 300
atgtggtgt cttgttcttg gatttcccag cccactcgag 340
```

<210> 1658

<211> 312

<212> DNA

<213> Homo sapiens

<400> 1658

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gaattcgcg cgcgctcgac agcacacctc aaactaacac agtccctatc aaacctttga 60
tcagtactcc tctgttttca tcacagccaa aggttagtac tccagtagtt aagcaaggac 120
cagtgtcaca gtcagccaca cagcagcctg taactgctga caagcagcaa ggtcatgaac 180
```

ctgtctctcc tcgaagtctt cagcgctcaa gccagagaag tccatcacct ggtcccaatc 240
 atactttctaa tagtagtaat gcatacaatg caacagttgt accacagaat tcttctgccc 300
 gatgccctcg ag 312

<210> 1659
 <211> 219
 <212> DNA
 <213> Homo sapiens

<400> 1659
 gaattcgagg ccgcgtcgac gctactggtt caaattcagg ttctggcgtc aaatagcgac 60
 atttcagtt tctcttaaaa accgtgtttg gtttcagttg ggataggctt gttttgtctg 120
 ttgaaaatgt ttctagtttt ttttctttca ttttctctc attccatttc tgcettaact 180
 ttagtttgtt cacaggaggg caaagctgac aatctcgag 219

<210> 1660
 <211> 129
 <212> DNA
 <213> Homo sapiens

<400> 1660
 gaattcgagg ccgcgtcgac agctactaaa tctggctctaa tagtcaagac catcgatttt 60
 gaagttctaa tttttattat ttagttcata actaaaatga tttctttctg gaataaactt 120
 gtactcgag 129

<210> 1661
 <211> 245
 <212> DNA
 <213> Homo sapiens

<400> 1661
 gaattcgagg ccgcgtcgac gttatgtgcc cagaagatct gagtgtttca ttagtaattg 60
 gaattctctt ctggaatctg actatcccag tggaaaaggg agatcatccc ggcattctgga 120
 tctctcctgc acatttgatt ccacttgga aactttgggt ctgcctttcg aggacagagg 180
 ccgaggggtg gctctctcca acaggcagtt acagcttgaa ttctgcttct tccccaagac 240
 tcgag 245

<210> 1662
 <211> 266
 <212> DNA
 <213> Homo sapiens

<400> 1662
 gaattcgagg ccgcgtcgac atgtgtgaag ctttcttcca gcaagaagca aaagaaaaag 60
 aaagagctga acccagagca aaagtcaaaa gagaagctga aaaggagaca tgcgatgaat 120
 ttctggagact ttgcaaaaat ggaaaacttt tctgcacaag agaaaatgat cctgtgcgtg 180
 gccagatgg caagacccat ggcaacaagt gtgccatgtg taaggcagtc ttccagaaaag 240
 aaaatgagga aagaagagga ctcgag 266

<210> 1663
 <211> 252
 <212> DNA
 <213> Homo sapiens

<400> 1663
 gaattcgagg ccgcgtcgac gaaaaatttc tctttcacag tctcagctct agacaattgt 60
 tatcttgtgg gatgctggcc tcatgttggc agaattgtcg attttacag ggaagccaga 120
 aatctgggtt ttcatataaa ttttttact atttttattt tattttatta ttttttgaga 180
 tggagtttct ctcttgttgc ccaaggcgga gtgcaatggc gcaatctcag ctaccacaa 240
 cccctactcg ag 252

<210> 1664
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 1664
 gaattcgcgg ccgcgtcgac ctgaaatggc tgtctgtcat gcttgccatt tttatgaaac 60
 actttattgc aggtcagcta ttattgcacg tgcacttca agtcaactggc tcaggctggt 120
 gtcattgtgt gtttgcgtga aacggcagcc tgccttgagc tgtgagctct tcctggaaac 180
 agcagtctct tctagctgat gccacatcag ctttaagtca ttaggaagat attctaggcc 240
 ccttggttgc tcagccatca gtctataaat cacacaacac taattttcca tcaagtaaca 300
 gcttaaaaca gaacactgtc aaaccacaac tcgag 335

<210> 1665
 <211> 230
 <212> DNA
 <213> Homo sapiens

<400> 1665
 gaattcgcgg ccgcgtcgac ctccagatctc ttaattgaaa gctttgatat atttcatgtg 60
 tgttttttaa tagcattcaa tgtatgttta aatataggag tgcctgtga gtggctcccg 120
 gggagcagcc ggaagtgttg tactcggctg tctatttgtt gtgggagagt cttctgttg 180
 actgtggatc tcatatttat gaggactgca tgcaaggatt gcctctcgag 230

<210> 1666
 <211> 260
 <212> DNA
 <213> Homo sapiens

<400> 1666
 gaattcgcgg ccgcgtcgac ccccttttat catttgcac agaaggctgc tgtctccctt 60
 ctgatttggg gggcaggtat tgtttttgag ccagtattta acagagtttt ttaattctata 120
 agattttttt tgaatctatt tcatttgttt tgtttttcat gttggaacaa tctctctgga 180
 agtgccctct cttgtggctt ttacaacttc atttctttct ggggtcacct gtgatgggct 240
 ttgatgtggt ggagctcgag 260

<210> 1667
 <211> 202
 <212> DNA
 <213> Homo sapiens

<400> 1667
 gaattcgcgg ccgcgtcgac caccgtcaat gaaagtgtct gacctttctg cctctgcctc 60
 cttactccta gcttgccggg atgggaccaa tgcccaccag gatcttgtec cctccatgtc 120
 accgaactgg tctgtctca gccttcacct gacctgcgc ctcagcagcc aggcacatgc 180
 tgctctccc tctcctcg ag 202

<210> 1668
 <211> 275
 <212> DNA
 <213> Homo sapiens

<400> 1668
 gaattcgcgg ccgcgtcgac atttgatagt tgattttcat atgtctttta ccttttaaaa 60
 tctccattt cattcattgc tgtcttttgt gttgataatt aaaattaatc tatttttatt 120
 tctttaaaaa attttctcc taatctctgt gttggtcaat tttgtgttt tttttttttt 180
 ttgtaatgaa atgttttgat tctattctca tttcttttgc ggctatttta aagatattta 240
 gtattttctt tgtggttacc atgggggaac tcgag 275

<210> 1669

<211> 286

<212> DNA

<213> Homo sapiens

<400> 1669

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gaattcgcg cgcgctcgac cccattcacc ttattcttcc ttaaataaat atctaatacat 60
gttatttccc tgcttcaaaa actttctaat tatttccctg ttgtcttcaa gatcagacca 120
aacttcccag caacactctt caaaatctga ttccagcctc ctggtacagt gtcattcttc 180
ctcagcacac tccagggtccc tgacacacga gccagtgttt ctctattcc cattgcctat 240
aggattcctc cccacccatg acttgctccc ctgcacctgc ctcgag 286
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<210> 1670

<211> 290

<212> DNA

<213> Homo sapiens

<400> 1670

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gaattcgcg cgcgctcgac caaaacatct gcacgacagc tacgggcagt tcatcaacac 60
aggagatctt gaataataat caaggattaa ttaagttaa agcgtatcac atttgtacc 120
agtgtcagaa tctgggggag gaagaacaat taaaaagaa ttaggggttt ttattggtaa 180
atccaaattc attcctaaat caaatgatga aaatatttgt cgttgttaac actctaacc 240
atttaatatg tgcctgtctc ttcaaaacac taggaagcac cccactcgag 290
```

<210> 1671

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1671

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gaattcgcg cgcgctcgac ggtggtagaa gtaacctgaa atagagatac atttaaatat 60
ctgagtgagt gatttcagca aaggagagag accctgtgtt actattttag gagtgtctt 120
gattgtgtga accggttgaa tacaccactt actaaccgag cccggccatt ttgctcagat 180
tattcagagc tctcaggccc attcagaatg aaattcaaaa tctttaccat gacgtcgag 240
```

<210> 1672

<211> 274

<212> DNA

<213> Homo sapiens

<400> 1672

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gaattcgcg cgcgctcgac cttagctgtt aaaacttcta gattgaaatt tgacagccag 60
ggttacatat tggggacttt taaagtgtct ttccaaagag atttcattaa ccgtttagat 120
tagaatatct ttccaattg ttacagtgc atatatgtg caatatttaa caactggagt 180
attagecaca tgggttattt ttccaatctg tgttttgaat tttttattg tgtgttattt 240
aaaatattac atatgcagcc gggagaacct cgag 274
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<210> 1673

<211> 239

<212> DNA

<213> Homo sapiens

<400> 1673

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gaattcgcg cgcgctcgac tggaatatca aattttcatt tcttttcta acacttgagc 60
tttctacttg acacaggcaa gaaatagagt ggagctttat tgtagcctct gctttcagaa 120
acaggacata atattagttc atttccaagg attgggacat ctaatattag ttaattctaa 180
ggatttttaa tttgatgttt tcagtgtttc atattcacct tctagtgtat agtctcgag 239
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<210> 1674

<211> 297

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (22)..(24)

<400> 1674

gaattcgcg cgcgctcgac cnnnaaacg tcgattgaat tcataccttg tctcagatct 60
ctcctggtag cccctcccca cgcccttaga taatccatct caattctca tgctaattga 120
ggagctatgg ctgcaaggca cctccagga ttccacacct acacaaatct cctttttctc 180
cttttgctt ctctgcttat gggatattct gagtcccccac ccccaatcac tgacagctgg 240
gccccttca tcagcctcac acaccagga ttaagtcagt cacaatctcc cctcgag 297

<210> 1675

<211> 260

<212> DNA

<213> Homo sapiens

<400> 1675

gaattcgcg cgcgctcgac tgaaactata tcatttattt ttctatttat cactgctgtt 60
gtgttttgtt taattttaaa ctgtttcctt ctacttgagt ataagtctca gaaggcagga 120
gcttgctatc ctattcacct aaggtaaggg taccattatt taaaacagta ccttaagtct 180
aaaatatgaa cagttcagca ataagagcca aataatagtt taacaaaatg ttatcacata 240
tctacacaat agcgctcgag 260

<210> 1676

<211> 376

<212> DNA

<213> Homo sapiens

<400> 1676

gaattcgcg cgcgctcgac gcgtagtcag aatgggtgtct ggacgggttct acttgctctg 60
cctgctgctg gggctccctg gctctatgtg catcctcttc actatctact ggatgcagta 120
ctggcggtgt ggctttgcct ggaatggcag catctacatg ttcaactggc acccagtgtc 180
tatggttgtc ggcattgttg tattctatgg aggtgcgtca ctggtgtacc gcctgcccc 240
gtcgtgggtg gggcccaaac tgcctggaa actcctccat gcagcgctgc acctgatggc 300
ctcgtcctc actgtttgtg ggctggtgc tgtctttacg ttccacaacc atggaaggaa 360
tgccaacat ctcgag 376

<210> 1677

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1677

gaattcgcg cgcgctcgac ctttgttgc agtccaaatc ctctgatttt ggtttgattt 60
gtcctagcag atccctgaac ttcagagagt attgccattt ggattcatgg agttggcgaa 120
ctgctacact gctacctgt gtatggcctt aagctttgat cctaattgact ggttgatgat 180
catgataata ttagagccag tgcctgag 208

<210> 1678

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1678

gaattcgcg cgcgctcgac actggcagtt caaaaactag tacagaaagt tggatttttt 60
ggaatttttg cctgtgcttc aattccaaat cttttatttg atctggctgg aataacgtgt 120
ggacacttcc tggtagcttt ttggaccttc ttgtgtgcaa cctaattgg aaaagcaata 180
ataaaaatgc ataccagaa aatttttggc ataataacat tcagcaagca catagtggag 240
caaagtgttg ctttcattgg tgcgtctccc ggcatagggc catctctgca gaagccattc 300

caggagtacc tggaggctca acggcagaag cttcaccaca aaagcgaaat gggcacactc 360
gag 363

<210> 1679

<211> 260

<212> DNA

<213> Homo sapiens

<400> 1679

gaattcgcg cgcgctcgac cgctcgattga attctagacc agcctgggga aacatagtga 60
gacctatct ctactgaaa aaaaagagag agagaaagct tcgagaggag atgagaccat 120
tctttatttc ttattttctt ctttctggtg actgccagct cgctcagatt cctccacctt 180
ccttgctggg gtgctgccct atcagcccca cctttctat tcctagaagt gaaagctggc 240
atcttcccca caacctcgag 260

<210> 1680

<211> 377

<212> DNA

<213> Homo sapiens

<400> 1680

gaattcgcg cgcgctcgac gctctatcta tgaatctgat aaaggccttc cttcaactgg 60
agacaatttg ggatgttga aaacaagggt tgggaagccc ttctatggat cggttttgtg 120
tccaagtctg tccctgccaa aagccatcaa aagtctccat cccccctgg ctccagtctg 180
ctacccccag acttggcagc tgggatctct ccttctctgt tcatagttct cattcccacc 240
cctcagcgat ggagtttagag ttccaggccc acgtggtgaa cgagatttg agtgcaaga 300
gggaatacgt agtttatgat ctgaagacct aagtcaccac ccagcagctg gtgccagggg 360
gtgatggaga actcgag 377

<210> 1681

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1681

gaattcgcg cgcgctcgac cacttccaga atgtccatca ggttgatcat gatgtttttg 60
tgtgtcttct tgtacttccc gacacgtagt gagacagtga gccagccagg gcgccccgtg 120
cacatgaagg tcttgctacc ctgctccttc cattcccgca cctgcttctg gatgtccgc 180
acgcgctgct cgtgcaggcg cggagcgctg ctgagcttga acaccacca gctcgag 237

<210> 1682

<211> 275

<212> DNA

<213> Homo sapiens

<400> 1682

gaattcgcg cgcgctcgac ggacgcttcc acttgatgcc ataggtcttg gaggaattgg 60
gacccaggtc cttgtaacct aggcctctgg gtaccggggg gaaggcctca tcacggaaga 120
gggtccact ctgcaggcaa acccccagtt catttggtat ggagctaccc gcacagacat 180
ctgccaggga gcaatggggg actgctggct cttggcggcc atgcctccc tcactctcaa 240
cgacaccctc ctgcaccgag ggtatgtttc tcgag 275

<210> 1683

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1683

gaattcgcg cgcgctcgac caggcatcta tgggatgtgg aatctgtatg tctttgctct 60
gatgttcttg tatgcacat cccataaaaa ctatggagaa gaccagtcca atggcgatct 120

gggtgtccat agtggggaag aactccagct caccaccact atcaccatg tggacggacc 180
cactgagatc tacaagcgac tcgag 205

<210> 1684

<211> 274

<212> DNA

<213> Homo sapiens

<400> 1684

gaattcgcgg ccgcgtcgac ctgtgacagg atcaatgttt atggcatggt gccccagac 60
ttctgcaggg atcccaatca ccttcagta cttatcatt attatgaacc ttttgacct 120
gatgaatgta caatgtacct ctccatgag cgaggacgca agggcagtca tcaccgctt 180
atcacagaga aacgagtctt taagaactgg gcacggacat tcaatattca cttttttcaa 240
ccagactgga aaccagaatc acttgcaact cgag 274

<210> 1685

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1685

gaattcgcgg ccgcgtcgac gattgaattc tagacctgcc tcgagatgat tctccttcag 60
ctttcttttc tcccggtctt ttgcgtctct tctcctctcc ctctgtctgt ctctgtcct 120
gtccccacga ggactctcct tagcgggtgtg gacttcgggc accctgtctc tgcctctg 180
atcctggtcg ggatccttgc acctcggctc cattcactcg ag 222

<210> 1686

<211> 197

<212> DNA

<213> Homo sapiens

<400> 1686

gaattcgcgg ccgcgtcgac tagaccagcc tctagcttac ctgccataa attaaaaat 60
atagtgtgtc tattcttgat aaaacctcta gcaaccctt ccattttcaa tcagaatacc 120
accataaat ttaaaagcat ttttaataga cttttaaaaa tatgctaata aaatctagtt 180
atctctgtga cctcgag 197

<210> 1687

<211> 328

<212> DNA

<213> Homo sapiens

<400> 1687

gaattcgcgg ccgcgtcgaa tgggcttggg aaacgggctg cgcagcatga agtcgccgcc 60
cctegtgtcg gccgccttgg tggcctgcat catcgtcttg ggcttcaact actggattgc 120
gagctcccgc agcgtggacc tccagacacg gatcatggag ctggaaggca gggtcgcag 180
ggcggctgca gagagaggcg ccgtggagct gaagaagaac gagtccagg gagagctgga 240
gaagcagcgg gagcagcttg acaaaatcca gtccagccac aacttcagc tggagagcgt 300
caacaagctg taccaggacg atctcgag 328

<210> 1688

<211> 379

<212> DNA

<213> Homo sapiens

<400> 1688

gaattcgcgg ccgcgtcgac gtggcagagg tgcttgtgtt tttgtcggtc caggagagtc 60
gtatggcgg cgtgtggattc ggatgtcgaa tcgctgcgcg gtgggggggt ccgctgtctg 120
ctctgccacg ttactacagc caaccgacc agccttgatg cccaattggg aggcagaaag 180
caccggcacc tggtagaact acgagctgcg agaaggcccg agggacttcg aagtgtgttt 240

gtcagtggct ttcccagga tgtggattct gctcagctct ctgagtactt cctagcattt 300
 ggacctgtgg ccagtgttgt catggacaag gacaaggag tgtttgccat tgtggagatg 360
 ggggacgtgg gtgctcgag 379

<210> 1689

<211> 406

<212> DNA

<213> Homo sapiens

<400> 1689

gaattcgcg cgcgctcgac ctttaagcaa acctgaaccc acctatgtgt cccccccctg 60
 cccccgcctc tcccacagca cacctggcaa gagcaggggg caaacctaca tctgccaggc 120
 ctgtaccccc acccaccggcc cttctagtag cccctctcca ttccaacag atgggggtcc 180
 ttggacacca tcccccaagc acagtgggaa gacaactcca gacataatta aagactggcc 240
 caggaggaag agggcggttg gctgtggcgc cggtcctct tccgggaggg gcgaggtcgg 300
 tgcagacctt cctgggagcc tgctactgct tgagacagag ggcaaggacc acggccttga 360
 actcagcatc cacaggacgc ccatcttgga ggattttgag ctcgag 406

<210> 1690

<211> 221

<212> DNA

<213> Homo sapiens

<400> 1690

gaattcgcg cgcgctcgac ctttaaggtg tataacaaga ctttgagac agaccagaat 60
 ttaactcta gttttaccac ttttaaccag ctatgttcaa gtttaattat ctttttttaa 120
 atattgaaa acttatgaga ttttcaaaac tgcacaaaac agggaacagt ataattaacc 180
 cccatattgt cattacacat attcaagagt caactctga g 221

<210> 1691

<211> 320

<212> DNA

<213> Homo sapiens

<400> 1691

gaattcgcg cgcgctcgac gttttagaaa acttgtttat ttgctgtgt gcggtagggg 60
 ctcttcaagc atccacctga gttccttatt gctgattctt ggaagtttgc aaatactct 120
 ttcagaacag ttttcattat tcatttgcac agcattccat ggtacacagg aaattgtatc 180
 tagtttcgtt ttttgttttg gggggttttt tttggtgttt gtttgagaca ggtctcact 240
 ctgttgccca ggctgttgtg cagtgtcatg atcttggtc acagaaatct ctgccccctg 300
 aactcaaagg atcactcgag 320

<210> 1692

<211> 226

<212> DNA

<213> Homo sapiens

<400> 1692

gaattcgcg cgcgctcgac agcctccttt gtgattcatt ctttctaca tgattgggtg 60
 taatcatggt tctatctca gtcattctca tctattcatt ctctctgggc aaattcatc 120
 atttattacc acactcctct gtggatctat agactcctct acccagcact gtaatggaca 180
 tttcatctg gatgtgtccc atgcatttca aaccaacaa ctcgag 226

<210> 1693

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1693

gaattcgcg cgcgctcgac actcacacct atatatgaca gtcgtggggc agaaaggact 60

tagactttttg tgggtctttt ccaaagtatt caacttcatt tttattaaag aaaaaatttt 120
ttttctcctt tatatttcatt tagcttacct gatattctat caaattacct atgtcaataa 180
caagcacaat ctcgag 196

<210> 1694
<211> 222
<212> DNA
<213> Homo sapiens

<400> 1694
gaattcgcgg ccgcgctcgac gagagaaatg ccatcatgct tactgctctt ttggattctt 60
catgcagtgg cttcccattht gctctgggaa cagtgcctct gtgctggta tatgtatgca 120
ccacatgtgc acacacgggt gtcggtgcaa ctcaccagca ggtgtgcagt aggcaagctt 180
gaagtgggcc catgcttctc tgtgtcaca caacacctcg ag 222

<210> 1695
<211> 233
<212> DNA
<213> Homo sapiens

<400> 1695
gaattcgcgg ccgcgctcgac aaagaccttt gggatttatt cagtttgctt ctgttttcag 60
agttgttcgc tgcgtctgtg aaagtggaa aaacacagcag tgcctgcac attgtatgat 120
aaaactttat gtttgccttt ttgtgtgtct gtaaggggtt atttgccatt ctgtgtcagg 180
ttttggtgtt tagttgcatt ctacttactg cgttttgcca agcaaacac gag 233

<210> 1696
<211> 230
<212> DNA
<213> Homo sapiens

<400> 1696
gaattcggcc aaagaggcct aaaaatatga gttcctaatt gtcaaaaata ataacaaaaa 60
tacaattttt gagcaagtag tagagagatt ttaaagtata acgtgctaaa ccttcagttt 120
gtaacctggt cttgttgctg ctgctgttag ctatgggaag tatcagggga ctaagtatta 180
ttttatttat ttgtttgttt atttctatgg gttttcgggg ggcactcgag 230

<210> 1697
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1697
gaattcggcc aaaaacctac ccactcctgt gctaccacgc cccagaggca gaagccaatg 60
ggtcactgtg ccctaagggt tttgaccagg gaaccacggg ctgtcccttg aggtgcctgg 120
acagggtaag ggggtgcttc cagcctccta acccaaaagg agctgttcca ggctccaggg 180
gaaaaagggt tggccaggct gctcctcgag 210

<210> 1698
<211> 179
<212> DNA
<213> Homo sapiens

<400> 1698
gaattcggcc aaagaggcct aaatctttta tttttgttaa actttttttt cttttgttaa 60
aataaataaa acattcaatg tttttctcct tttctcctt attactctt tcttttgga 120
ttttcaattt gaaatgcttt cttttggttg ttggttttat tctccccaa tccctcgag 179

<210> 1699
<211> 224
<212> DNA

<213> Homo sapiens

<400> 1699

gaattcggcc aaagaggcct aaaatcatct aacacaaaac ctatactata ctacagtgtc 60
taatatttca cagtaattta ttgaacctg tactgacaat gaaaaacaga gtggttggtt 120
gcgtacttga agtacagttt ctgctgaata catgttgctt ttgcattctg gcaaagtcaa 180
aaactctaag tcaacaatc ataatcaaa ccatgacact cgag 224

<210> 1700

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1700

gaattcggcc aaagaggcct aggacagggt ttcatggaa acagtgaagt aaatgcaata 60
ctgtctccgc gatcagaaaag tggaggcctt ggtgtgagca tggtagaata tgtattaagt 120
tcttctcctg ctgataaatt ggattctcga tttaggaagg gaaattttgg cactagagat 180
gctgaaactg atgaacctcg ag 202

<210> 1701

<211> 106

<212> DNA

<213> Homo sapiens

<400> 1701

gaattcggcc aaagaggcct acacagtgtt tccgatgtgg agccagccct ggaagcctct 60
ccgtggctta aggacccccg ctgctttctg gccccaattg ctcgag 106

<210> 1702

<211> 327

<212> DNA

<213> Homo sapiens

<400> 1702

gaattcggcc aaagaggcct agtgtaaatg caacaaagaa aaaggcccta agcttctcta 60
cttatttagat atatttttgg caattgattt aacttttgcc aaccttcagt ttctaatct 120
atgaaatgat agtgataagt tctgcatata gggttgttac gaaaattaaa tgagataatg 180
tgtaaatcaa ttagcacagt gtctcacacc tagaatgcac tcaagaaata atagccacta 240
ttagattagt catagtata gaatatcatt aagggcctac atttgtataa aactgtcct 300
ttacacacaa tatccacaag tctcgag 327

<210> 1703

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1703

gaattcggcc aaagaggcct actctactcc ctcatccgcc cagtactatg caaccatcaa 60
tctgtctcta tgggtgtaga ttgatactgc cacctatagc catttgcatc attgtatatt 120
ctattcagat tctgttagtc aatttagata agaccaagga actcgag 167

<210> 1704

<211> 316

<212> DNA

<213> Homo sapiens

<400> 1704

gaattcggcc aaagaggcct actttgacaa aattcaacaa ctcttcatgc taaaaactct 60
ccatctggta tcttttctct tcagcctaac ggtatcatct gacagttctt gtagtgtagg 120
tttgaggca acaaatctta taggccttgg ttctctgaa aatatcttta ttcatcctc 180

agtatacttt tttctgggta tggattcctg ggtttgcagg gtattccac ttgtccgagt 240
 tttcaatata ttcatgtttg aagatgttcc attggcctcc attattttct atgaaaagtc 300
 agctgtcaca ctcgag 316

<210> 1705

<211> 311

<212> DNA

<213> Homo sapiens

<400> 1705

gaattcggcc aaagaggcct attcccaagt aattagattc aaggtaggct ttctcagccc 60
 gaataatgca gaaatcacat tatggccttc tcagggtatc atgtttgaag gtgtgcctag 120
 tgccattta ttctcttttg gtgatgttaa ttttgattac cctgtcaaga tgttgtgtgg 180
 tttttccctt ctataattac tgccttttcc cctctccctt gagacgaata agcaatctgg 240
 ggtgcatttt aagaccatac aaatacaata atactatggc caccctcctc ctccaaccca 300
 gtaagctcga g 311

<210> 1706

<211> 235

<212> DNA

<213> Homo sapiens

<400> 1706

gaattcggcc aaagaggcct aaagggttcta ttctccccc accagtcact taaaaatcca 60
 aacaacaata caacctgact acaggagtac ttattataa atgtacagtt cttacagtag 120
 aaagaacaat atgaagatgt gggctctagt cactgttgcg ttactaagtt tctatctgtt 180
 acctagaata agtcatcttt taagggtctca gatttttccc actacgaaac tcgag 235

<210> 1707

<211> 232

<212> DNA

<213> Homo sapiens

<400> 1707

gaattcggcc aaagaggcct agtttggttt tgccaaagga ttatcaactg agctattatt 60
 agtacttacc taagttagtt tggtaggaat caggagaaga gagaaatcag aaatgattgt 120
 tgtgtttctg ttatggctgg ctctctgtca ccccatgaa aatacggcag tatcagagat 180
 aagtaatcag gtaatatcag agataagtaa tccatcgaaa gcccaactcg ag 232

<210> 1708

<211> 339

<212> DNA

<213> Homo sapiens

<400> 1708

gaattcggcc aaagaggcct aaaagtctgt gttctcttgc caattcatca aattagttct 60
 ggtggcattt ggttccccc cagaaataaa tcactgttaa atgattcttt ataaagcagt 120
 ccacacattt atcataccac agtgatctga acccatttag ggaattataa gctacagttg 180
 gtcattgtgc aggcctagca actctggcct tgtcacattg catctctctc cactccccgt 240
 gctaccacta atccttcagg actgagattc aaggctttgc tagtaagagg cttggaaata 300
 atcatataaa acataatagt gtggcatggc aagctcgag 339

<210> 1709

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1709

gaattcggcc aaagaggcct acgagattgt tcttttcaac gtaactgttt tgggacctgg 60
 ccaggagaat gtttcatctt cagacagtga tacagtttca ctttgttctt tccatcttt 120

atctttttga gacctcgag gccttgagct tgtcaccatc tccctcagac agaccagtgc 180
tcctcgag 188

<210> 1710

<211> 192

<212> DNA

<213> Homo sapiens

<400> 1710

gaattcggcc aaagaggcct actcgagttt tctgttttc tttctctctc tgtatgtctac 60
tttcaatttt tctttcttct tttattttga gacagaatct ggctctgtca ctcaggcttg 120
agtgcctgtg catgatctca aaaacaaaag aaataaaaaa taaaaataaa aggttcctgt 180
gagcaactcg ag 192

<210> 1711

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1711

gaattcggcc aaagaggcct aatcatttgt tttgagggtta gtttgattag tcattgttgg 60
gtggtgatta gtcggttgtt gatgagatat ttgggtctgt acctgttggc ttcatttctc 120
ttattacctt gttgccagge caccgggtcc ggcccagcct tgattcttcg ggaatcactt 180
ctccctcgcc gcgcctgtta ctgcctccac ggatcactca tcctcgag 228

<210> 1712

<211> 212

<212> DNA

<213> Homo sapiens

<400> 1712

gaattcggcc aaagagacct aacctatgt tcttcaactgt aattttcctt gcatcatctt 60
atcaattagc tgtaaacatg cttattttta aatgccattc aaacgcctct aatagaatcc 120
tgtggcaaag tgaagaatcc tttacatac acagtacaga tgtatcaaaa ccatgtactg 180
ttttgtttac acacatgaca gaaccctctg ag 212

<210> 1713

<211> 230

<212> DNA

<213> Homo sapiens

<400> 1713

gaattcggcc aaagaggcct aggtctgtgc agtaccagc aagattccag tctcttctc 60
acacatatcg acttagaatg gtcattgtat tttegcattt gaatcctcta cttatttttt 120
tcttcagatc ttccagttag tgttcttctt cgttttatcc ttaccttctt tttggcacia 180
aagctgagac gctatctgt tgcctcaaat caccagtcac gtttctcgag 230

<210> 1714

<211> 272

<212> DNA

<213> Homo sapiens

<400> 1714

gaattcggcc aaagaggcct acgattaaat tagacctgcc tccagtattt ccgtaacttt 60
aaattggtag ctttcatttg cttaaaattt ttggcatat gcagataatg ttctcatcag 120
tagtaagaat ctcagggtta tgcttattcc ccaatggagg tatgacatat aatcttttct 180
gcctttactt atcaattcac caaggagctg ttttctctgc atctaggcca tcatactgcc 240
aggtggtta tgactcagaa gcctgcctcg ag 272

<210> 1715

<211> 128

<212> DNA

<213> Homo sapiens

<400> 1715

gaattcggcc aaagaggcct agttggggtt gtttttacta caaaataagt tacttagttt 60
tataaagaca aaccgattgt agccaaatga caccatattt aataaaattt agtctgaagt 120
gtctcgag 128

<210> 1716

<211> 268

<212> DNA

<213> Homo sapiens

<400> 1716

gaattcggcc aaagaggcct actaacattc tgtgatgcct aattttgcaa aatcactttt 60
cattcaccca ataaattttt ttctttcttt ttccacagag ttttgctctg tctcccaggg 120
aggagtgcag tggcggggtc ttggctcgct gcaacctctg ccttcagggt tcaatagagt 180
ctctgcctc agcctcccaa gtactggga ttacaggctc atgccaccat gcccgggtaa 240
ttttcacatt tttagaagag gtctcgag 268

<210> 1717

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1717

gaattcggcc aaagaggcct actgtcatat atgtgtttgt gtttcttata ttatttcctt 60
ttgacttcag ttttgcatcc caaatatgta tggggtggca ttttaacagt caatgagtca 120
aacagtcaaa ggaggacagg aggggagcca gctggtagga gggagcagca accgtgtgtg 180
gaccaagcgc catttttgtt ttatagacgt gtcttcctaa acctcgag 228

<210> 1718

<211> 264

<212> DNA

<213> Homo sapiens

<400> 1718

gaattcggcc aaagaggcct agacatctta acctcagctag aggccttgtg aaatatgaac 60
ggctgtatca atgcctgcct tcagtacctt attattatta ttattatttt gacacagagt 120
ctcgcattgt cacctgggct gcagtgcggt ggcggcggtc tggctcactg cggcctctgc 180
ctcccagggt cgggcgattc tctgtgttcg gctcctcag tagctgggat tgcaggtgct 240
caccacaaca ccaggcaact cgag 264

<210> 1719

<211> 214

<212> DNA

<213> Homo sapiens

<400> 1719

gaattcggcc aaagaggcct acaaaattgc ctgaattgta ctgtatgtag ctgcactaca 60
acagattctt accgtctcca caaaggtcag agattgtaaa tgggtcaatac tgactttttt 120
tttattcctt tgactcaaga cagctaactt cattttcaga actgttttaa acctttgtgt 180
gctggtttat aaaataatgc gtgtaactct cgag 214

<210> 1720

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1720

gaattcggcc aaagaggcct acccagctac atttgtgata ctttcagtc taagaaaatc 60
 tatattctgt agctttgaag ttatttaaca gttaagtact atttgcgtgt ttattctgat 120
 tttgtcttaa atgacaaata ttttattcat cttttctctt caaacattat ttaacaaatg 180
 tacgttttaa tgtttgctct cgag 204

<210> 1721

<211> 234

<212> DNA

<213> Homo sapiens

<400> 1721

gaattcggcc aaagaggcct aggcgtgtgt atgaagattt tgtttggttg tttttgttt 60
 tttgtttttt ttgagatgga gtcttgctct gtcaccagg ctggagtga gtggcgtgat 120
 ctcagctcgc tgcaagctcc gtctctcagg ttcacgccat tctcctgcct cagcctcccg 180
 agtagctggg actacaggtt acaggcgccc gccactatac ccggctcact cgag 234

<210> 1722

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1722

gaattcggcc aaagaggcct atgattgcaa aggaaataac taagccaatc taaatttcac 60
 tctagaatta gttaaagttt tgattaaaag gaggagtta ttttgaatta aattagtaaa 120
 gagagtgaga aatctgatag gagttaacat caacacatac accacaggct ttggttgcaa 180
 gtaggccatg ctaacaattc tactgggatg tctcgag 217

<210> 1723

<211> 248

<212> DNA

<213> Homo sapiens

<400> 1723

gaattcggcc aaagaggcct aagttttcaa ccattattgc tttaaatatt ttttcttctc 60
 ctctattctt ctccactttt tctggtactc tttttatatg tatgttggtg cactcactta 120
 aaggatatctc acattttctt gaggcctcgt tcatttttgt ttttattggt gtctattttt 180
 ctgtctgttc tttgggtttt gtaatcgta ttgattcact caatattctt tctgccagtc 240
 atctcgag 248

<210> 1724

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1724

gaattcggcc aaagaggcct aagcatattg tcagaaggaa ggatggtgca aattagcttt 60
 ttatcttcta gcattttttt actacctata tggcatgac tatgttttgg tgagctctta 120
 gaacaacaca cagaagaatt ggtccagtta agtgcattgca aaaagccacc aaatgaaggg 180
 attctatcca gcaagatcct gtccaagagt agcctgaggt gtctcgag 228

<210> 1725

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1725

gaattcggcc aaagaggcct agttgagttt gtcattaaaa tcataaacca gctgcggtaa 60
 cagacaagcc tttggctggg gagttttaag cctcggtaac tgctataaaa ctagccatcc 120
 agttaggata gaatgtgttt ctttctgggt aaaaaaagga aaaaccatct aagaaaaat 180

atatgtatgt atgtgtgtat acagtggat tcaaaggacc aaagcaaaat ttgaacagga 240
ttcctcgag 249

<210> 1726

<211> 436

<212> DNA

<213> Homo sapiens

<400> 1726

agaattcggc caaagagcct actggcatgt ctgagcataa gcctgacagt ctacttttcc 60
agctttcact ttctctttaa tcatectagc caagagctca aattctggag caaaattctg 120
gcaaggtcca caccaaggag catagaaatc aatcacccaa tgatttttcc ctgttagaac 180
tttttcactg aaagtctgag gtgttagatc tgtggatact tgaggtaaaa atcctagacc 240
ccagattctc agggaataag catccctatt ccaaccattg taactgtgat actgataagc 300
tttatttgat ttgggggaa aaaatcttat ctcagggtat ctttgaacgt ttctctgggc 360
acaaaaagaa tgatactgtt ggcaatctat actgccacg ttgatcagtc cagttaatgt 420
ccgggcccgtt ctcgag 436

<210> 1727

<211> 367

<212> DNA

<213> Homo sapiens

<400> 1727

gaattcggcc aaagaggcct actgatacaa tcaagaagca gaacattccc atcccacaaa 60
gatctcttat ctggcccttt tactgccgga caaattccct ctctctctg ccccatcctt 120
aacctctgac aaccactcat ctgctgtcga tttctgtaat tcagtcattt caagaatgtt 180
acataaatgg agttgtacag tatgtaacct tttgagactg gctctttttt cactgagcat 240
aattctctgg agatttatct acattatctt atatatatcc atggattgtt cctgtttaft 300
cctgagtaat attccatatt atggatgtat cagtttgtt aactgtttag ctgttgaagg 360
actcgag 367

<210> 1728

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1728

gaattcggcg ccgctcgac cgattgaatt ctgacctgc ctcgagcgag acttggttta 60
aaaaaaaaaa aaaggtagcc ctttactatt agaccgattt ctcccgcaat acagagcagt 120
agctgagaat cattgtgtc tatgtggcat tttctgtac ttgcttctgc catgccatgc 180
cttttctcat ccttgagacc agatcaccat ccaaaaacac tcgag 225

<210> 1729

<211> 352

<212> DNA

<213> Homo sapiens

<400> 1729

gaattcggcg ccgctcgac cccagagaca ctgagccac tttagtctaa tttctgtc 60
tttaattatt ttaacactcc agaggaggac tggttttctc ctgtgttttt ttaatatatg 120
gcaagtggaa cctctaactg accaccctgt tttcagcct aactcaggct tgtggtaaaa 180
ttatcagttc ccactttctt tctgtcattc tcaaattgcaa cacaggagaa cagctttccc 240
ttgcaaatc acaatgtgt taactatttg tctttatta tacatttcat taaagttttc 300
tattattgga tttctttcta cttctcccta cagttctgcc cattcactcg ag 352

<210> 1730

<211> 145

<212> DNA

<213> Homo sapiens

<400> 1730
 gaattcgcgg ccgcgtcgac ctcaaacttt ggtgtacata ccaatgatca tggtaaaata 60
 cagcttggtg ggccctcactg cagcagtttc tgtctgttct tatccagtac tgccacctat 120
 tgggcaagct cttcagaagc tcgag 145

<210> 1731
 <211> 341
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (25)

<220>
 <221> unsure
 <222> (306)

<400> 1731
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 ttgtgttga attccagctc tgccacttcg atagatttct gaactgagac atgtgactct 120
 ctaggcctat ttctgcatgg gtcggagagt gggcgggact gctttactga gttatagtga 180
 atgtagtttt aacctaaagc cctcacatga ctaactctc atccatcaag aatgagctca 240
 gctctcactt cccactcct cccccctg taaagtaacc tttctccaag gttatgcttc 300
 aacagngata gctaacattt attaaattgt ggccctcga g 341

<210> 1732
 <211> 411
 <212> DNA
 <213> Homo sapiens

<400> 1732
 gaattcgcgg ccgcgtcgac tggctttgta tgcttttctg tagtttagaa cagatacaca 60
 ttagtaaaag ataccaataa tcattagagc tcaaggaagt tattagtgac agcctctgga 120
 gccatactca cgctgcagtg cataatggga aaattaggag cattaataag aaatttcagt 180
 agtgtttgta aggaaaataa gctacttact gagatctgtt tcttctattg catgtttgct 240
 tttgagggac agcttctgtc aaaagtgaat tcatcaccag aactgggctt gttaggaaga 300
 atagggtttt atttactttt tatgtcaatt aacttcaaca aaaaggccac gctggctgtc 360
 gtcacgcat ctgggtatgc attaaacatt aatgatgatc agcatctcga g 411

<210> 1733
 <211> 319
 <212> DNA
 <213> Homo sapiens

<400> 1733
 gaattcgcgg ccgcgtcgac ggtccgggtg cttttctcat attgactcat attggacata 60
 aattcatgcc cagcaaccct atccaaggag gaattttggt tggctctgga tcatttatc 120
 ttatggaact caggatgctt tttttcttag gtactaaca accatccat taatattcct 180
 tctctagcat tactcttgat agggagttct gtagttttgt agaaaagact gaagtaggcc 240
 tgggtgtgtg gctcacgctt gtaatccag cacttttgga ggccaagggt ggcagatccc 300
 ttgagatcag gcgctcgag 319

<210> 1734
 <211> 192
 <212> DNA
 <213> Homo sapiens

<400> 1734
 gaattcgcgg ccgcgtcgac gccagacag agttttgcaa gcattgcttt gttttgcttt 60

atatttaaag cccctttctc caaaaaattc attccacttt catcttctga atcggagttg 120
 gaatcagtc cagaattctc tgagggtcgg cgggactctg cttttttgtt ggttgctccc 180
 ctggagctcg ag 192

<210> 1735

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1735

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctgacctgc cctcagtgtc 60
 tcccagtttc cttgctttct tttatttccc tcctgattgc tgcctcccca gttcttacca 120
 gctctctgtc ccagtccttt cctgtcaaag atggcagact cctccaatgc caccgctccc 180
 ctaccatct gcccgagtc ttccttctc tctccctccc tcttggtctt ttggccatc 240
 cccctcgag 249

<210> 1736

<211> 180

<212> DNA

<213> Homo sapiens

<400> 1736

gaattcgcgg ccgcgtcgac gagcatttgc aaagtcatga aatattcttt gttttgtttg 60
 ggggcagttg gttggtttt tcatgtttt tctgtggggg cagggacagg gtctcactct 120
 gccacccagg atggaacgca tagctcattg cagcttcaac ctttaacccc cggactcgag 180

<210> 1737

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1737

gaattcgcgg ccgcgtcgac ttgagtgttt actaactctg tgttttgctt acctggcttt 60
 tcttccttga agttgcttaa tttttttccc tccaagagga attattttaa aagacttttg 120
 tctgtgacat aaccaagatt tattctgttt acctaaaggaa cttattttct tttttgcaat 180
 ttcatttatt ctgagtcact ttatttgtaa taagtgaaga attttaatac ttagaataa 240
 gttgtaaaaga aaataatgag aatcttacca tgcgtactcg ag 282

<210> 1738

<211> 290

<212> DNA

<213> Homo sapiens

<400> 1738

gaattcgcgg ccgcgtcgac gagaaaagtt tcagaaaacc tagattagag atgttggtct 60
 tatttttatt tttctttatc tcaactctgtc cttcttccct ctcttcttt cttcttccc 120
 actcccttct tacctctcca ctttgttttt ctacctcagc cctacttcc ttcctttctt 180
 taattcttc attcttctt ccttctcaa tagataagt taataatagt ggttggtttg 240
 ttgtagatgt ttcaggggga aaaaatttaa aaggttgac agttctcgag 290

<210> 1739

<211> 356

<212> DNA

<213> Homo sapiens

<400> 1739

ggaattcgcg gccgcgtcga cagatttttt cctaaactga ggcaagaatt gagtctactt 60
 ttttttgttt ttcttgagtc tctgtttacc tcaaatctag agacactctg ccctctagt 120
 gaaatttctt aaaggtcagg taatcagtta gtcactctag ttcagaggcc aacagctata 180
 atcaactgta gaagacccat ccaacacaaa ttcaaggagc tgatccaaag caaatgccca 240

cctccttggc aacagttgtt acagctgtgt tccttttcac ttctttctct cctttactta 300
aaccacattt attatccttc agttctggag gtcagaagtc cgacacaggt ctcgag 356

<210> 1740

<211> 298

<212> DNA

<213> Homo sapiens

<400> 1740

gaattcgcg cgcgctcgac tattcctggg tatggcactg tctatgcca tctcttcacc 60
actatttggg ctcctaagtg ataaaaggcc acctctaagg aaatggcttc tgggtgttgg 120
caacttaate acagccgggt gctacatgct cttagggcct gtcccaatct tgcatattaa 180
aagtcagctc tggctgctgg tgcgatatt agttgtaagt ggcctctctg ctggaatgag 240
tataattcca accttccgg aaattctcag ttgtgcacat gaaaatgggt cactcgag 298

<210> 1741

<211> 263

<212> DNA

<213> Homo sapiens

<400> 1741

gaattcgcg cgcgctcgac cgcgctgattg aattctagac ctgcctcgag ttttgccttt 60
ggctctctgc cacttgggtga actattgtct gctttttcaa gatgcagctg ttgtgtcacc 120
tcttctggat agtcttcca tactatctac acaagcaaat tgttgcctg ttccttgaaa 180
accacactca acctctctgt acacaccagg caagaacata cgcacttac ttgttaccag 240
gtctatctcc cctccccctc gag 263

<210> 1742

<211> 328

<212> DNA

<213> Homo sapiens

<400> 1742

gaattcgcg cgcgctcgac ctaccacata agaagatatt tatataacag ttctcagaat 60
ccaactgttt tgcagttgaa attttctccc aagattccaa ttagtataaa attttaattt 120
gctaagaagc atctcacata ataaataagc ctatcaagaa ggcaatttat attaatatag 180
aataaactag actctgtgtc ctctgaatta aacaccaatg agcaccctaa agtttagact 240
tccttgcttt tattacttat atctgtttat tttttatgat gcagtctctg agcctgttcc 300
atttgaaact gaagctccca cactcgag 328

<210> 1743

<211> 155

<212> DNA

<213> Homo sapiens

<400> 1743

gaattcgcg cgcgctcgac gtctgttgaa aaagagaaga ggtttgcaa tctctcatt 60
agagtactat gcaagtgtg catcactatt tccaaatttc cagggccata atgagtatct 120
tctttccact agctacttta acacaagccc tcgag 155

<210> 1744

<211> 277

<212> DNA

<213> Homo sapiens

<400> 1744

gaattcgcg cgcgctcgac gaagaatgca agtattctgg agtttgagaa atgttttttc 60
tgcttttctc atgaaatata ccttgaaca ccttccatt tgtggggacg ttaaatacta 120
taggcagaaa aatgaagata cgagcctgg catgcgagga ctgcgtggca gtgtgggacg 180
cgtgcttgag cctcactttc ttctctggga gatggcggta ggcggggccg tggagagcag 240

tagtgggaca gaaggagctg agtgctggga gctcgag

277

<210> 1745

<211> 392

<212> DNA

<213> Homo sapiens

<400> 1745

gaattcgcg cgcgctcgac atgctttgtc ccaagccct gaatccctca aatctgacct 60
 tgtcccttc tgtggccacc actctctct atttcatttg agtgctctct cctgagcctt 120
 tcagccctcag ccagcccgac tcttaatat ctgccccttc cctggaactc cctctctctg 180
 cctctctctc cctccagtgg cagaaacccc acctctgttg gccagtgctc tttgaagaga 240
 gtcctgagat gccctcgga gtttgggtag agcccttgca ggcattccaga gaacaactgg 300
 aatcaaggcc ctttgtgctt tctggctccc aagcgccttt ggggcttgag gttctcttca 360
 ttagtggtag atctgaagtg tttctctctg ag 392

<210> 1746

<211> 432

<212> DNA

<213> Homo sapiens

<400> 1746

gaattcgcg cgcgctcgac ctaaatgaga agactttcaa tagtaatgaa gaatccatgg 60
 cactctctc acctcaaac acatggcagt cattcacata caggccccaag agccactgtt 120
 agtgctgcag tagctctctt ggacattgga aagcccgag agggcttgga agaaatcagc 180
 tggcccccgg caggttctct ggggttttct gcccaaggct cctggagccc taaaaacttt 240
 caaaagttaa ctccccacgt ccccatctct cttgggtttc tggacttttc tgaggcaccg 300
 gcagaggggt ctcatgtctc ccttgagtgt aggggcagcc cttaaacctg gctccttgag 360
 tccctgcttt tctctctctt gttgccttct tctctctctt cctctctctc aatatctctc 420
 cccaaactcg ag 432

<210> 1747

<211> 368

<212> DNA

<213> Homo sapiens

<400> 1747

gaattcgcg cgcgctcgac tgtgcttggt ggggtattact taagaaatca ttgcccgac 60
 cgataccctg gagagtttcc ccagtgtttt atttttagtca tttcatagtt tgaggcttta 120
 gatttttctc ttttaataat attttgattt gaggtttcta tatggtgaga gataggagtc 180
 tagtttcatt cttctgcata tatatatcca gtttccaagc accatttatt gaagaaactg 240
 tcttttctgc catgtatgtt tttggcactt ttgtcaaaaa tgagttcact gtaggcgtgt 300
 ggattttttt ctgggttctc ggttctattg ttctgtgtgc ctgtttttat gccagcacca 360
 cgtcgag 368

<210> 1748

<211> 302

<212> DNA

<213> Homo sapiens

<400> 1748

gaattcgcg cgcgctcgac gcatatacag ccttgggtat ttttaattatg agactaaaac 60
 tcttcttgac accacacatg tgtgttatgg catcactgat ctgctcaaga cagctatttg 120
 gatggctctt ttgcaaagta catcctgttg ctattgtgtt tgctatatta gcagcaatgt 180
 caatacaagg ttcagcaaat ctgcaaaccc agtggaatat tgtaggggag ttcagcaatt 240
 tgcccacaaga agaacttata gaatggatca aatatagtac taaactagat gcagtcctcg 300
 ag 302

<210> 1749

<211> 153

<212> DNA

<213> Homo sapiens

<400> 1749

gaattcgcg cgcgctcgac aggtctctct catattccat cgccagtttc tgttacaagg 60
cagactgaat caagccaaga tcaacacaca ctggtacacg tggctcccaa ccaattttat 120
atgtatatat atattctact tcaaacactc gag 153

<210> 1750

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1750

gaattcgcg cgcgctcgac ccccccccc cttttttttt tttttttttt cctccttaat 60
tttttgttca ttggattttt tccctcggtt agttaagtgc tctgctgctt gcttgetcat 120
gcttcttaac aattttagcc ttgactgat tttttttt tctttttctc tttttactgg 180
tatttgtttt ttatactcat tactaaaca ggggaattcct caagctgtac ttccccatt 240
accaagagg cctgctcttg aaaaaaccaa cgggtgccacc gcatgctctg ag 292

<210> 1751

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1751

gaattcgcg cgcgctcgac gcgcacagtt cttctgtac ctgtgtggag gaaaagtact 60
gagtgaaggg cagaaaaaga gaaaacagaa atgctctgcc cttggagaac tgctaacctt 120
gggtactgt tgattttgac tatcttctta gtggccgaag cggagggtgc tgctcaacca 180
aacaactcat taatgctgca aactagcaag gagaatcatg ctttagcttc aagcagttta 240
tgtatggatg aaaaacagat tacacagaaa ctcgag 276

<210> 1752

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1752

gaattcgcg cgcgctcgac tggctgggtg gtagatttaa atcactgttt ccgcatgtta 60
ttcatgacgc ccatgaaacc cgccaacaat tttagcttctt cccgagcagc aagtttcttc 120
tcgtctcttct tcttgtgct cttctccacc ccagaggctg ccatectccc tcagctcggg 180
tcacgccccg ggtcgcgcgg gccgggagag aggtcgcccc tcgag 225

<210> 1753

<211> 362

<212> DNA

<213> Homo sapiens

<400> 1753

gaattcgcg cgcgctcgac agaccccaca acatgcgccc tgaagacaga atgttccata 60
tcagagctgt gatettgaga gccctctctt tggettctct gctgagtctc cgaggagctg 120
gggcatcaa ggcggaccat gtgtcaactt atgccgcgtt tgtacagacg catagaccaa 180
caggggagtt tatgtttgaa tttgatgaag atgagatggt ctatgtggat ctggacaaga 240
aggagaccgt ctggcatctg gaggagtttg gccaaagcctt ttcctttgag gctcagggcg 300
ggctggctaa cattgctata ttgaacaaca acttgaatac cttgatccag cgttactctg 362
ag

<210> 1754

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1754

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gaattcgcgg ccgcgtcgac attgaattct agacctgcct cggctcttcc ctttttcattc 60
ccatacctaa gccatcagca agtgcttctg aaataccatg tccagaatct catcacttct 120
cactctctcc actgctgcta ccctgactgc tgtcatcccc tcttgccctgc attactgtac 180
cagccgcctg actcgtcttc ctgcttccac ctccccacct tcagtcatat atccaggcag 240
caacggaggg ctcgag                                     256
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<210> 1755

<211> 226

<212> DNA

<213> Homo sapiens

<400> 1755

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gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgc ctcgagcttg gtcccacttt 60
tatatttttc ctcttcggtc cagaatttct tathtagttt cttgtatttt gcctactccc 120
tccttctccc atgattcagc ctagtctttc cgtcctctgt ggacttgggt gtgccttctc 180
ctgggccacc tcgtcttttg ctgctgttag cccaccgcc ctcgag                                     226
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<210> 1756

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1756

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gaattcgcgg ccgcgtcgac ggtgggggac tctgaacttg tgcgtctgct gccatatttg 60
caatggtgct gaggtggttc atctggctca ttgccatgag caactatcat gccagtaata 120
accaacatgg agcagactct gaaaacgggg acatgaattc aagtgtcgga ctggaacttc 180
cttttatgat gatgccccat ccactcgag                                     209
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<210> 1757

<211> 820

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (20)

<400> 1757

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gaattcgcgg ccgcgtcgan ccataatgat gctgcctcaa aactcgtggc atattgattt 60
tggaagatgc tgcgtgcac agaacctttt ctctgctgtg gtaacttgca tectgtctct 120
gaattcctgc tttctcatca gcagttttaa tggaaacagat ttggagttga ggctgggtcaa 180
tggagacggg cctgctctg ggacagtggg ggtgaaattc cagggacagt gggggactgt 240
gtgtgatgat ggtggggaac actactgect caactgtcgt gtgcaaacag cttggatgtc 300
cattttcttt cgcctatgtt cgttttggac aagccgtgac tagacatgga aaaatttggc 360
ttgatgatgt ttctgttat ggaatgagt cagctctctg ggaatgtcaa caccgggaat 420
ggggaagcca taactgttat catggagaag aagtgtgtgt gaactgttaa cgttgaaacc 480
atctgggttt gaggttagtg gatggaaaca ctctgttca gggagagtgg aggtgaaatt 540
ccaagaaagg tggggaacta tatgtgatga tgggtggaac ttaaataccc ctgcctcct 600
gtgcaggcaa ctaggatgtc catcttcttt ttttcttct ggagttgcta acagccctgc 660
tgtattgcgc cccatttggc tggatgacat tttatgccag gggaaatgagt tggcactctg 720
gaattgcaga catcgtggat ggggaaatca tgactgcagt cacaatgagg atgtcacatt 780
aacttggtat gatagtagtg atcttgaacg taggctcgag                                     820
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<210> 1758

<211> 132

<212> DNA

<213> Homo sapiens

<400> 1758
 gaattcgagg cgcgctcgac gagtagttgg gcaaaacaaa tagcagtaat attaaagcca 60
 gaaatctcct tagagttctt actggtgggc caggtgtggg ggctcatgct tgtaatccca 120
 gcgtttctcg ag 132

<210> 1759
 <211> 267
 <212> DNA
 <213> Homo sapiens

<400> 1759
 gaattcgagg cgcgctcgac ccttttaata gaccaattcc tcttctcaaa attcagatat 60
 tgtctgttct cacattccct cagttctcaa ttttcttctt cgtagtcttt tctgtactta 120
 acaacctag attttctcag ttcaggcaaa actctcatta ctagtatttt cctttctctt 180
 tgacctataa gtgtgaagcc ctttagcattt cccccatat tttctgagtg acctccccc 240
 atgctgctgt gtcagatcac tctcgag 267

<210> 1760
 <211> 237
 <212> DNA
 <213> Homo sapiens

<400> 1760
 gaattcgagg cgcgctcgac cagcgttcca agtgtcttcc acatgctaaa tcgattgac 60
 cttagtccag agctcttgac cacagcccta tgcctaaaca aaatgcccc gtgttcactt 120
 ttcacaggtt gtctctttaa cacaactac gtgtacgacg aatgctatta tgcccatttt 180
 actgagggga aaacagcttc cctctcatct attctgaacc cctcttcacc cctcgag 237

<210> 1761
 <211> 273
 <212> DNA
 <213> Homo sapiens

<400> 1761
 gaattcgagg cgcgctcgac cttggatcaa aagcatctct ttgaacctct cctcaggca 60
 taccttga aa tgctgtggac ttttaacctt tttctgttgc aaaggctcgt cacatctccc 120
 tgggtgtttg gtcttctctt ccttggctct agtaacacag cagtctgttg cttcctagga 180
 caactataa tgggacccaa aggggaaaga ggatttcccg ggcctccagg aagatgtctt 240
 tgtggaccca ctatgaatgt gaataacctc gag 273

<210> 1762
 <211> 349
 <212> DNA
 <213> Homo sapiens

<400> 1762
 gaattcgagg cgcgctcgac tgcttgagg aggacaagtt aattagaaaa atatagaagg 60
 gcatgtagat ttgaaagagg atttgggaac atttgaatt tagaaaatga atcttagaac 120
 ttatacttct aactttttat gcttaaagg actaatgtac attttatgat tttagttata 180
 caagtggagg gcttatcagc tgggcatatt cattttccct ttgttaagaa aaagaaccaa 240
 atgagtaaga gaagaatgta actgggaaaa aactaaaaac agaggaagga agtgggttaa 300
 gaagatatat ctgtaaattt aagaaagcat ttggagaggc gagctcgag 349

<210> 1763
 <211> 263
 <212> DNA
 <213> Homo sapiens

<400> 1763
 gaattcgagg cgcgctcgac aattattttc acttttatc tgattacctt ttacagtgg 60

cactttattg acaaaaccca agtccacetc acctctctgg cagctaccta agtgggtatgg 120
 gtttatttgg gtctctattt ttgcttcatt tgcttgcttc taagatccct cctgggtcag 180
 gccatgctcc tcgccccac ccgcaggatc tgatgctaca ggaatataat tgggtgcca 240
 ctaccacaac ccctcatctc gag 263

<210> 1764

<211> 568

<212> DNA

<213> Homo sapiens

<400> 1764

gaattcgcgg ccgcgtcgac gacctttgga tgagattttt gtgggggtctt ttttgttgat 60
 gttgtgttgg ctttctgttt ttcttttaac agccaggccc ctctcttgca gggctgctgc 120
 cgtttgctgg aggtccactc cagactctat tcacctgggt ccctcccaca cctggagata 180
 tcaccagtgg aggtgcagc aaagcaaaga tggctgcctg ctctctctc caggagctcc 240
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 cccttggtgg gaggttccac ccagtcagga ggcacgatca gggacctgct taatgaagca 360
 atctggctgc cccttggcag agcagggtgca ctgcactggg ggaatccca ctctcttga 420
 ctaccagcca cctcagagcc agcaagcagg aaagactaag tgtgttgaac aggagatcat 480
 gactgctccc ccacagagga tctgtccac tggccactc agagccagca agcaggaaaa 540
 actaagtgtg ttgaacagga gtctcgag 568

<210> 1765

<211> 176

<212> DNA

<213> Homo sapiens

<400> 1765

gaattcgcgg ccgcgtcgac gtccttctct gcttcttgta ccccttcttc cctgttatct 60
 catctaaatc ctccggaatt ctgatataat atttatctct ttcaaatcg aactctgttg 120
 catttttgta gcttctaaga ttccaaatga tgatcctctg ccccttcttg ctcgag 176

<210> 1766

<211> 528

<212> DNA

<213> Homo sapiens

<400> 1766

gaattcgcgg ccgcgtcgac atgcaacttc tgcaacttct gctggggctt ttggggccag 60
 gtggctactt atttctttta ggggattgtc aggaggtgac cactctcag gtgaaatacc 120
 aagtgtcaga ggaagtgcc tctgttacag tgatcgggaa gctgtcccag gaactgggcc 180
 gggaggagag gcggaggcaa gctggggccg ccttccaggt gttgcagctg cctcaggcgc 240
 tccccattca ggtggactct gaggaaggct tgctcagcac aggcaggcgg ctggatcgag 300
 agcagctatg ccgacagtgg gatccctgct tggtttctct tgatgtgctt gccacagggg 360
 atttggctct gatccatgtg gagatccaag tgctggacat caatgaccac cagccacggg 420
 ttcccaagg cgagcaggag ctggaaatct ctgagagcgc ctctcttgcg aaccgggac 480
 cccctggaca gagctcttga ccagacaca ggcctaaca cctcgag 528

<210> 1767

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1767

gaattcgcgg ccgcgtcgac cctaaaccgt ctatttaate ctttgttgcc ttctttctta 60
 ctaaagggtga gtgagctgct tgcattcttt tctggaacce ttctctgtgc acctgagccc 120
 tctggctgct tcatggacct cgctgagcta tgcctcctct tcttcatcat gcgtttttcc 180
 ttctctgctg gatcatttgc ttccacacac aaactgcctg ctatgtctct cgtattaaaa 240
 ataaaaaac agaaaaattt ccccttctg aatcactoga g 281

<210> 1768
 <211> 112
 <212> DNA
 <213> Homo sapiens

<400> 1768
 gaattcgcg cgcgctcgac gttttagtgc gctgggtggg gtaataagtc catttttagt 60
 ttttcaagga gctgccaaat tattgtcaac aatgtttgta cegtttctcg ag 112

<210> 1769
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 1769
 gaattcgcg cgcgctcgac gtggtatttc tgttcttgag ctccccgagg gatatcccat 60
 aattagttat ctgtattggg tgggaaaaag aaaataactg ggtttttctc ctgttgccca 120
 attctgtgcc acgtttgtta acccctagtc ccaatttttt ctgccggctg ctcttagaag 180
 gcttattgga caatcttaac atctgagtag cagaagtccc tgagtaaact tgggtgaag 240
 aattgccaca tagtttaata gttgtggatc tgctggtttt catggatctt ttgtttcagt 300
 atcaagaaga tgctttgttg gaacatattt ttaccaccac ttttgctcga g 351

<210> 1770
 <211> 407
 <212> DNA
 <213> Homo sapiens

<400> 1770
 gaattcgcg cgcgctcgac aaagtatttt tttttctctt aaactgattt ttagcaaacc 60
 tcagactgaa acacaggact caacggtgta ttcttggaag gcaagggtgt ataatggcag 120
 gcacaatctg tttcatcatg tgggtgttat tcataacaga cactgtgtgg tctagaagtg 180
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 ccattggaatg tttctgccc cccagttttc ctactgcttt atattgtgaa aatagaggtc 300
 tcaaaagaaat tctgtctatt ccttcaagaa tttggtatct ttatcttcaa aacaacctga 360
 tagaaaccat tctgaaaag ccatttgaga atgccaccg actcgag 407

<210> 1771
 <211> 328
 <212> DNA
 <213> Homo sapiens

<400> 1771
 gaattcgcg cgcgctcgac ctgggacgag taggtttcac tgtttctcat aggagacttg 60
 acagcttaaa gtaaaaacaa attattttcg tcaaagtatt ttttttctc ttaactgatt 120
 tttagcaaac ctgagactga gacacaggac tcaacggtgt attcttgga ggcaagggtc 180
 tataatggca ggcacaatct gtttcatcat gtgggtgtta ttcataacag acactgtgtg 240
 gtctagaagt gtaaggcagg tctatgaagt acatgattca gatgattgga ctattcatga 300
 ctctgagtgt cccatggtct cactcgag 328

<210> 1772
 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 1772
 gaattcgcg cgcgctcgac tgctagtaag aactactcca tggctaattt gttcttcaga 60
 gtaaaactgaa ctaatctttt ccaagtgcga gctgctcaa gttgataaat gcctaaattt 120
 ccaaaatact acaacaaaa gcaaagtatt ccagtctccc agatacaatt tttttataga 180
 tacctcaaca tgcacaaaac ttttctttgt tgctgtgtgt ttttgagaca gggctctcgt 240
 ctgtcacccg ggccagagtg taatgatgtg aacacagctc actgcagcct caacctctctg 300

ggctcaagca gtcctccagc ctcagccccc tccctcgag

339

<210> 1773

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1773

gaattcgcgg ccgcgtcgac ttctagtaa ctgtgtcttt cacattttat aaatattaac 60
ttcttaaac tgcattcttct tctttgtcca catatcgta cattacaaa aagaatgtc 120
aattaaatc actgttaatg ttactatatt aaatctgtc tctgttcag cactccgtc 180
cttttaccac caccatcac ccctaaccac actccacca ctgctagttt gtcccactgc 240
tactgttgcc aacactgtca ccactgtcac catttcaacg tccccctcg ag 292

<210> 1774

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1774

gaattcgcgg ccgcgtcgac cacagacacc cagctaattg tcattaccc gcctcagctt 60
cccaactgt ttgattaca ggtatgagcc actgtgccca gcagaatta catttcaaaa 120
ttaatatgaa gacatggtga taactaatat atttataaca tgaatctgc tcattcagga 180
acatagaatg caaatctttc attccactca gcaaaatttt gtctgtctt tgataaaagt 240
cctcgag 247

<210> 1775

<211> 270

<212> DNA

<213> Homo sapiens

<400> 1775

gaattcgcgg ccgcgtcgac actaatgaag gtgcctggga ctagggcagc taaaagattg 60
ttttgtcaag ttctccagct gctactcttg ggcatatgt ggatgtttat ggttcagtg 120
gccactcca atctctttt ttgtctagtg cctggcctgg taccaccagc tcttagggt 180
actggcatga gtgaaaagag ctcagtgtc ccaaacacac cactaccac cttgtattct 240
tcaaccaccc ggaccacac gtctctcgag 270

<210> 1776

<211> 251

<212> DNA

<213> Homo sapiens

<400> 1776

gaattcgcgg ccgcgtcgac attgaattct agacctgacc ctccccaact ctccctgtct 60
cctcttcat tcttccctc tttcttttc cctctcttc cccacttga tctgagctgc 120
ttcttaacgg tatgagatta ttttactct ttttcttct tcccttctt gtctgctg 180
gcttagagag gtgcctgccc tgtcctctct gaccacccg tctttttcca agcatgaaca 240
gtggactcga g 251

<210> 1777

<211> 342

<212> DNA

<213> Homo sapiens

<400> 1777

gaattcgcgg ccgcgtcgac gttatttacc aattttttca aagatctaca ttaaaagtat 60
gaaataaatt ctttttctt ttaaatagg atgacataag tctttcatag tagcagaatt 120
tgcttttagga aaacgatgat tatatgttta tatatttacc atatagaatc tgtaacataa 180
tggtgaatgt cctgatgtct tctaaccga tcattaaact gatttagatg ggtggatgga 240

tgacaggcag gcaggctcac agacaaacct tttttatgct aagccaacaa accaccattt 300
tcttcttttc cccttagtcg ggccttacct caatctctcg ag 342

<210> 1778

<211> 419

<212> DNA

<213> Homo sapiens

<400> 1778

gaattcgcg cgcgctcgac gtttgggaag aaatggtgaa tgcctgctgg tgtggtcttc 60
ttgctgcact ctcactcctt cttgatgccg gcacagatga agctgccact gagaatattt 120
taaaagctga actgactatg ggtgttcttt gtggaagact gggccttgta acttcaagag 180
atgcctttat aactgcaata tgcaaagggt ccctgcctcc ccattatgct cttactgtat 240
tgaataccac cactgcagct acactttcca acaaatcata ttccggttcag ggccaaagt 300
ttatgatgat aagtcacatca agtgaatctc accaacaagt tgtggcagtg ggtcaacctt 360
tagcagtcga gcctcaaggg acagtaatgc tgacttccaa aaatatccac gtgctcgag 419

<210> 1779

<211> 127

<212> DNA

<213> Homo sapiens

<400> 1779

gaattcgcg cgcgctcgac gtttgggtctg gcttattatt atcaaaggcc attaaagacca 60
ctgataaaaa agttttaaag gttataatat ttataaaagt atcatgaaac tggagtgttt 120
cctcgag 127

<210> 1780

<211> 527

<212> DNA

<213> Homo sapiens

<400> 1780

gaattcgcg cgcgctcgac cagagaccaa atcactcagt tctcagaaca cctgaagatt 60
ttttttaaaa ttgttaaaaa tcagagctat ttattagaag caatctgtgg gtgataataa 120
atctgctttt agagttttat ttatgctagat tttttattgt gctaaataat agaagggtac 180
tgccagcacc atctctgate agtctgcaaa cttagagcgg tcagcctctg cttgcaaaact 240
gaaaagttag ttctctagac agcacctgtg gtctgaaact cagtacttct ccaaggaaaa 300
tcttaccagg aaaactctgc ccagaaatct gtctattaac agaggtgata accaagctct 360
ttcaaggtaa taatatgttt atattgagtt ttatactttc catgttccga ggtggccatt 420
ttcattgcat atgtcatccc actaacgtgg ctacacttat ttgtttgttg atgcctgaca 480
gttcacgtca gtcaaatgac ctgcccctct cagggtggaat gctcgag 527

<210> 1781

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1781

gaattcgcg cgcgctcgac cctaaacctg cgattgaact gctcagagcg attctctata 60
catctttccc tgcaaaagaa gtattttcaa tggtttactc caaactaata cttcaaactc 120
tcctctccac tcaaaacttt cactcaatat ctagtctaac aagctgttgg gtggtgcct 180
acagtgccac atccctgcct ccattctcta tgctcgag 218

<210> 1782

<211> 260

<212> DNA

<213> Homo sapiens

<400> 1782

gaattcgcgg ccgcgtcgac ctgaataccc ttgaaaagaa cacacctat cccattcttc 60
caggtagcca ccattcttgg acttatacca agcagccttg ctacaaaaca cttctgagtt 120
tgctaagatc caagagacca gaccttctca tgacaccact gctgtcttct tgtcttcttc 180
tctgtgcagc caccctagca aggctcagtc tcagtcttgc ctccagtcac catccaaaaa 240
taaccaccac ttcctctgag 260

<210> 1783

<211> 106

<212> DNA

<213> Homo sapiens

<400> 1783

gaattcggcc aaagaggcct aaatttctac caggtttctg gatacagtga aatagctaac 60
ctctgtttca agaatgcagt tattaagtca aaggaactta ctcgag 106

<210> 1784

<211> 149

<212> DNA

<213> Homo sapiens

<400> 1784

gaattcggcc aaagaggcct atttttctgc taagagttcc cgttttaatt gtcttgcttc 60
ttttctgaac tcttcactcg agtttggacc caaagatcat tgccagaatc ggccaaagag 120
gcctaattga attctagacc ggcctcgag 149

<210> 1785

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1785

gaattcggcc aaagaggcct acttaaatct aaaagtagat ctctgacttg atattccagt 60
ggcctggcct gtgaatcatt tctcgttgac tagcctgtct taactcaatt tgactaaaaa 120
gtcttcacca agagatgta gttgcacctt ttctcgag 158

<210> 1786

<211> 102

<212> DNA

<213> Homo sapiens

<400> 1786

gaattcggcc aaagaggcct attcttttgg acaaacatga taaacttctt cagatacttt 60
ttttttcctt tggcaggaag gtgtcttctt gcaggctctg ag 102

<210> 1787

<211> 110

<212> DNA

<213> Homo sapiens

<400> 1787

gaattcggcc aaagaggcct acccagattg ccagcgcagg ttggaagccg catatttgga 60
tcttcaacgg atactagaaa atgaaaaaga cttggaagaa gctcctcgag 110

<210> 1788

<211> 149

<212> DNA

<213> Homo sapiens

<400> 1788

gaattcggcc aaagaggcct aaacacgatt ccattttgtt gatgttctcc ttagcagcag 60

tcgtgtcttc ttttcacatt ctgtctacag caaatgcac cttttgccac attgtccct 120
gcacctcca tagatcacac aatctcgag 149

<210> 1789

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1789

gaattcggcc aaagaggcct aaaaaagac atttattcag cgtcacgac agactgttac 60
atttagcaat caacagcatg gggcgcaaaa aaaaaaatc tacattaaaa ccctttgttg 120
gaatgcttta cactttccac agaacagaaa ctaaaataac ctgttataca attagtcaca 180
aatacagtcc tcgag 195

<210> 1790

<211> 233

<212> DNA

<213> Homo sapiens

<400> 1790

gaattcggcc aaagaggcct aagaaagttg gatttttttg aattttggcc tgtgtttcaa 60
ttccaaatcc tttatttgat ctggtcggaa taactgtgtg acactttctg gtacctttt 120
ggaccttctt tggcgcaacc ctaattggaa aagcaataat aaaaatgcac atccagaaaa 180
tttttgttat aataacattc agcaagcaca tagtggagca aatgagtctc gag 233

<210> 1791

<211> 123

<212> DNA

<213> Homo sapiens

<400> 1791

gaattcggcc aaagaggcct agatgggatt ttcatgttaa cttttttcat ggcattcctc 60
tttaactgga ttgggttttt cctgtctttt tgctgacca cttcagctgc aagaaggctc 120
gag 123

<210> 1792

<211> 131

<212> DNA

<213> Homo sapiens

<400> 1792

gaattcggcc aaagaggcct atgaacattt atataatcta acctggacat caagctgttc 60
tctctctctc ttttttttaa ttttattatt attatttttg caacatgtac atttctaaca 120
tcgtactcga g 131

<210> 1793

<211> 127

<212> DNA

<213> Homo sapiens

<400> 1793

gaattcggcc aaagaggcct agggatctgt tgctggaaag tcattgtgaa ttttttctt 60
ttcctctttt tatttgtata aatatatgag gtacaagtgt agttttgtta tgtggacctg 120
cctcgag 127

<210> 1794

<211> 107

<212> DNA

<213> Homo sapiens

<400> 1794

gaattcggcc aaagaggcct atggacgtag acattactct gtcctcagaa gctttccata 60
attacatgaa tgctgccatg gtgcacatca acagggccat actcgag 107

<210> 1795

<211> 104

<212> DNA

<213> Homo sapiens

<400> 1795

gaattcggcc aaagaggcct aggacattct tatctcggga cacacacaca aatttgaagc 60
atttgagcat gaaaataaat tctacattaa tccaggtact cgag 104

<210> 1796

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1796

gaattcggcc aaagaggcct agaggttagta aggggtttat atctctctcg tccatattgt 60
tttcaaagga atgaggtgtt taggtggctg gaaaagcatt tgtaggaagt ggctcgag 118

<210> 1797

<211> 106

<212> DNA

<213> Homo sapiens

<400> 1797

gaattcggcc aaagaggcct ataagtattg cctcaagaac tttccactat agaattctct 60
ttttatttaa aacatgtatg tatttaaaac tcaactgggt ctcgag 106

<210> 1798

<211> 124

<212> DNA

<213> Homo sapiens

<400> 1798

gaattcggcc aaagaggcct aacttaagta ctaatatcc agaaattttt gaaagcagta 60
accttaattt cctatgtatt tcattccact ttgcatata ggtcaaatag caatgtgtct 120
cgag 124

<210> 1799

<211> 155

<212> DNA

<213> Homo sapiens

<400> 1799

gaattcggcc aaagaggcct atgaaaataa cctatgattg tatgttttgc attcctagaa 60
gtaggttaac tgtgttttta aattgttata acttcacacc tttttgaaat ctgcctaggc 120
ctctttggcc gattgaattc tagacctgcc tcgag 155

<210> 1800

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1800

gaattcggcc aaagaggcct aattatccaa aatgcttgag ccagaaatgt gttttagatt 60
ttggcttttt ttttttcagg ttttagaata tttgtgtgt actggtgagc tcgag 115

<210> 1801
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1801
gaattcggcc aaagaggcct aagaattatt tttctctgta gaaacacaga taccacttta 60
tcagggaagt tagtcaaatg aaatggaaat tggtaaattg acttctcgag 110

<210> 1802
<211> 199
<212> DNA
<213> Homo sapiens

<400> 1802
gaattcggcc aaagaggcct aggtgcctgt gaggaatttg aggtccctgg acttctcgag 60
gacacagtct ctgtctccat cagctgcagc cttcaccacc tcgatgtaat ggtctgtgaa 120
ctctgtccca aactcccggc ttgcacaaa gtccagcagg gtcacctggt ggctggaggc 180
atcatacaga aacctcgag 199

<210> 1803
<211> 259
<212> DNA
<213> Homo sapiens

<400> 1803
gaattcggcc aaagaggcct agtgtgctt catcttctctg atcttctcct ggctggcccg 60
gagctcgctc tcggtggcct gcaggctcct ctccagtgtg gccacctggc ccagcgtggc 120
ccggcgctcc cgtcactgt gccgcacact ctctcctctg agcgccagct ccgctgggac 180
ccgctcagc cggccatcca cactgcgcgg ggcttctca ctctcagcca ccgcttctg 240
cagctgcctg gccctcgag 259

<210> 1804
<211> 138
<212> DNA
<213> Homo sapiens

<400> 1804
gaattcggcc aaagaggcct agtcaggatg aaaaggaagt tgagattttt taaatccctc 60
ttcgcttctg ttattttcag taccaacttg ttatcttttt ccttatctga ggctacctgg 120
ggatgggatg gcctcgag 138

<210> 1805
<211> 103
<212> DNA
<213> Homo sapiens

<400> 1805
gaattcggcc aaagaggcct agctaaattt ataggagttt tcagtaactt aaaaagctaa 60
catgagagca tgccaaaatt tgctaagtct tactattctc gag 103

<210> 1806
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1806
gaattcggcc aaagaggcct actgtttcca atacactggg agagtatcca agatagccag 60
aagaataaag acgacaataa aacagtaaaa tgatcagggt gtggctcgag 110

<210> 1807

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1807

gaattcggcc aaagaggcct acgagtgtta aagtggtag aaggggtgcta gtacttaagt 60
gagatgtcag tgccttgctgt gttcattact attacggat atgtgaatta cttgggcagg 120
ttgggagagg ggtctaggtc atcaggatac ctcgag 156

<210> 1808

<211> 102

<212> DNA

<213> Homo sapiens

<400> 1808

gaattcggcc aaagaggcct aatttcagat atggctgctt tttgtttctt aaattccttt 60
cttttagtga tgggggtcttg ctgtgttact caggccctcg ag 102

<210> 1809

<211> 134

<212> DNA

<213> Homo sapiens

<400> 1809

gaattcggcc aaagaggcct agtttttctt ttaacctctt ttaagtattg attctgcttg 60
agaatattga agtacttgcc agaagttgtg gatttcagtt ttaacaaatg ctattaaagc 120
ggagaatgct cgag 134

<210> 1810

<211> 109

<212> DNA

<213> Homo sapiens

<400> 1810

gaattcggcc aaagaggcct actttcactc ttgtaaaagc cacatatcca catctctttc 60
attttctcag tgtgttatgc agcaatttat taaagtattt attctcgag 109

<210> 1811

<211> 129

<212> DNA

<213> Homo sapiens

<400> 1811

gaattcggcc aaagaggcct aatggacagt ctgctactgt gcatgcttaa ctttgctctc 60
tttactctgt cttttgatcc tgttaggggt ttggcaaagg gtggagagaa aagtagagaa 120
ggactcgag 129

<210> 1812

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1812

gaattcggcc aaagaggcct attgggcagg gagtttagaa tgaatgggta atgtttgatg 60
gtcattgggc tctttttttt tctatgaagt tgtttaagtg gataataata acaataaaca 120
caatgaaagc aatcaatgt tgcagcttga gagctggtgg ggccttggcc catagcagca 180
cagaaaggga gggaaggag gacagcattg atgggggtct cgag 224

<210> 1813

<211> 154

<212> DNA

<213> Homo sapiens

<400> 1813

gaattcggcc aaagaggcct atggacctat tataattctt gtctggtttt gtccactgga 60
gcaataaagg aaaatgctta tcttacttct ggagtttctt cagctcctgg gtccagccct 120
caactattcc tcagcagggt ccttcaagct cgag 154

<210> 1814

<211> 139

<212> DNA

<213> Homo sapiens

<400> 1814

gaattcggcc aaagaggcct agaaaatgtg ggtgatgggg aagttggtaa tgactccgct 60
gttttttctc atggctcctt tgggccacag ctgcccgccc ccggtataca ctgtagttag 120
ttgcaggga acactcgag 139

<210> 1815

<211> 112

<212> DNA

<213> Homo sapiens

<400> 1815

gaattcggcc aaagaggcct actcatcttt tggtagattt attcctggat ttttttttta 60
ttctattgta aacgatacca ttttgtaant gttattttcc agttacteg ag 112

<210> 1816

<211> 153

<212> DNA

<213> Homo sapiens

<400> 1816

gaattcggcc aaagaggcct atataaagca gaattcaaga ggtctcctgt agtattaatg 60
tctgataaac agtgtgtgat tctcttctc aatatttctt tctttctgtc tctttgtttc 120
ggtctctgta tatatattac tgattcactc gag 153

<210> 1817

<211> 103

<212> DNA

<213> Homo sapiens

<400> 1817

gaattcggcc aaagaggcct aaaaaatag ccattcttat ctgtttggtt ttttaattct 60
ggcttaatat ttggggttga gtcatttgtt ttgagaactc gag 103

<210> 1818

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1818

gaattcggcc aaagaggcct agtgaagtgg agttatgggt tcattcaata gagtattgct 60
gattatactt gagtgaatc ctttctctac gtactccac agacgtcggg acctegag 118

<210> 1819

<211> 456

<212> DNA

<213> Homo sapiens

<400> 1819

gaattcggga aaagaggcct agcctgtatt tccagctact tgggaggctg aggtaggagg 60
 atcatttgag cctggggaaa ggaggttgca gtgagccatg atcacgccag tgcagtccag 120
 ccagcgcaag cgagtgaggc cttgtcccaa aagataaaaa taagaaaaac ttcattcttg 180
 gtctagacat ttgcagctga caaccattca acgatttggg ttttttttag tccatggatt 240
 aaacaatagt gggcaagaa tgctttttga acttttcctg aggaacttag ggaaccacc 300
 agtgcagtta taattcatat tgtgctgctt ggccccgtca gccttgccgt gtccatgtgt 360
 caggtcccc agcctacagt ggattttcgt tttacatccc aggatgattt aggaatctc 420
 tccagttttc aacagaacca gctggggccc ctcgag 456

<210> 1820

<211> 618

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (609)

<400> 1820

gaattcggcc aaagaggcct aggttaaag tttattaaat caagctttta aattatata 60
 ccacctacag tctataaaca aatagtagac acatgtatgt aaaaggctag cagataagaa 120
 ccagtggaaa aactaaagtt ccctttgcac accggcacct catcacaaca cctcttggg 180
 gtggatgcca tggggccact gctgtagtca aaagttaaag gaaaaacca caagttagt 240
 ttgactccgt ctcctagggt ggatttcatt cagatatttg ttccatatta taggagggtg 300
 gatcctagca aggaacacgt gtagttttta cattcacaga ttggctgaag tagtacaat 360
 tgagctgcta atctagggtg ctcctccct gttaccatac ttcataagaa atgtgaatta 420
 aaatgaacaa tggaccacag gtggttataa aaatagataa ctgcagagat cataaatatc 480
 tacagttagt agagcagaaa cttctaaaat ttacctttt ccataatgtg cagaatatec 540
 taagtatgtt caagagacac agtcagcaga cttcagagtg gtaattacaa gggcattggt 600
 aaagaaatna cactcgag 618

<210> 1821

<211> 575

<212> DNA

<213> Homo sapiens

<400> 1821

gaattcggcc aaagaggcct actgtgggga ggtattcaaa ggtttcctaa aacatcaggg 60
 aagttcgcca gggaaagact cgttggttaag catgttctag ggagagctag tggtagacag 120
 gccaggcca cagcaggcct tctagatggg ccagggtgc ttacctgtgc actagggtg 180
 gtacttggcc ctgcccggc cctctgtgg gcttatctc tgcagagacc attgtggtt 240
 tctggtgcca gaggcacca gaggtctgtg atctgctgc tttgaggcgg gaagggtgt 300
 tccagttctg ctttcccaag cgttggtgt gggcaacct tatgatccag gacgatggt 360
 catcttaacg agcagctggc tttacacca gggcgagcag aggtcttaaa ttatgccgt 420
 tgtcctggag taatttagag cagcctcttt tgtattcagg catcctggtt tgcattgtaa 480
 ggatgaata cagttgcctt taaacagcac gatgaagtgg gcgggttatt gttctcattt 540
 caccaaggag gataatgaac cttagcagc tcgag 575

<210> 1822

<211> 288

<212> DNA

<213> Homo sapiens

<400> 1822

gaattcgcgg ccgcgtcagc taagcccctg tattatcaca aattgtcaca tgctgtcatg 60
 tattactttc tccttttctg taatgacctt agccctccat attgtcatgt attgtcacgg 120
 attagcagtg cttattctga ccacgtagca gtgtgtttgg tgcattgtgc taatcaagat 180
 ttatgtaaat tattacttt tcatatgttg acttgattt tcatgggact gatcgtggc 240
 gtggagccgg gcgtggaatg cgagtgccta gtgggccacc gcctcgag 288

<210> 1823

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1823

gaattcgcg cgcgctcgac gacatgcaac taatagccct tgaacagcta tgcattgctgc 60
 ttttgatgac tgacaacgtg gatcggtgtt ttgaaacatg tctctctcgc actttcttac 120
 cagccctttg caaaattttt cttgatgaaa gtgtccaac actcgag 167

<210> 1824

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1824

gaattcgcg cgcgctcgac ccttattttg aagaaaagaa aagaaattga agaagtgaca 60
 gaaaacttct taaatttggc aaacctaaat attcaagaag ctgggcaaac tcctaacagg 120
 aaaaactcag atccattccc agatactttt taagtaattt gctgaaaact gaaaacaatg 180
 aaaaaaatct tgagagcagc actcgag 207

<210> 1825

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1825

gaattcgcg cgcgctcgac gtttaaaaag gactagccta agattaattt aaaagattat 60
 ttacagatga cacatttatg gggcactat ttaagtaaat ttgctgccct ccacagccct 120
 ctaattttat ttatattgtc cagcagatta ttaggatctg cttacttctt aggaagaat 180
 caatgctgac aacacattgt ttcagaaaca ccaagtctcg ag 222

<210> 1826

<211> 165

<212> DNA

<213> Homo sapiens

<400> 1826

gaattcgcg cgcgctcgac cctaaaccct catattcttt cctttatca catgttggtt 60
 cctctcttat gctacctggc ccttctctcc ctctcccaac ttgcccaca gctgtctccc 120
 ccaaccacac ctacgttggc caaccctct actcaccctc tcgag 165

<210> 1827

<211> 145

<212> DNA

<213> Homo sapiens

<400> 1827

gaattcgcg cgcgctcgac ctccattgct ctgtttgggt tctgttttg caagggaaca 60
 aactgaataa aaattatagc attctatttt ccagccacaa atgtggctct cagctctttc 120
 taattatata atccattac tcgag 145

<210> 1828

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1828

gaattcgcg cgcgctcgac ctctgggttt gttcttatta tcattattga tgactttatt 60
 tgaagaaccc aaatatgttc ttccattttt ttcggatcac ttgttaatat ttttagtta 120

aatcattctc tggggagagt taaaagaagc agtccaggta gctgggttat tgtgtagagt 180
aacagataat tctgatgtac tcgag 205

<210> 1829

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1829

gaattcgcg cgcgctcgac tttcttatta agcacaataa ttaacttttt ttcagcttag 60
atattgatc tccagaacca tgccttggtc tttctctctg tgtttctgc aggaaagtgg 120
atttatggtt actatggtct ctgggcttat agatgaactt ccttttaact gtttaattgtg 180
cacgctcgag 190

<210> 1830

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1830

gaattcgcg cgcgctcgac actccccat aactctctg acacctcacc atttacacct 60
ccagacatac tagccctta ttgtttctcc ccctggtcgt ttccttcttt ccttttgett 120
ggagtacttc cctctctcac caagttcttc ccaatatct tcacagagtc gctcgag 177

<210> 1831

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1831

gaattcgcg cgcgctcgac cactggctcat gtatttattc catatttata tgggtctactt 60
cctgtggctg ggagcagcag ctccctgaagg ttccgtgggg gtgcgggggg ttggacagga 120
cactccttct tggagggcac caatttctcc agcccactc ccattacaca cacacacaca 180
cacacacact ctcgag 196

<210> 1832

<211> 305

<212> DNA

<213> Homo sapiens

<400> 1832

gaattcgcg cgcgctcgac gggggaaata aagcacatct gaaataattt tcaaaaacga 60
ttggcctctt caaagaagtc ataaatatct gacactcact gagaataaac tggcaactta 120
catgatcccc ccaaatcttg agctaactat tcatagaggg gaaaatagat aatgtatagt 180
gttacttcca ttgatgata atgatgatga tgatgatgat tatttttgtt attctaagac 240
tgagcttcgc tctgtcaccg gggctggagt gcaatggtgc aatctcagct cactgcaacc 300
tcgag 305

<210> 1833

<211> 266

<212> DNA

<213> Homo sapiens

<400> 1833

gaattcgcg cgcgctcgac actccccctg tgggaagaac cagctctgtg tcttccctga 60
tgtcttcacc tgccatgaca tcccctcttc ctgtttcttc cacatcacca cagagcatcc 120
ctctctctcc tcttctctgt actgcacttc ctactctgt tctggtgaca accacagatg 180
tgttgggcac aacaagccca gagtctgtaa ccagttcacc tccaaatttg agcagcatca 240
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 <212> DNA
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<400> 1834
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 gtcagttatc ctgtagagta ctgtatttct cactccatct ttgtttgctt tcttgtggtg 180
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<210> 1835
 <211> 217
 <212> DNA
 <213> Homo sapiens

<400> 1835
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<210> 1836
 <211> 179
 <212> DNA
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<210> 1837
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 <212> DNA
 <213> Homo sapiens

<400> 1837
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 tactgagatg aagaaccaga tgacagaggt cagagtgtat ctatcagggt cgacgcggcc 180
 gcgaattc 188

<210> 1838
 <211> 244
 <212> DNA
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 gtctgacaca gagcccaggc ctacgacctt ggcatgtttt tgggggtgtg agcagcccag 180
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 cgag 244

<210> 1839
 <211> 148
 <212> DNA
 <213> Homo sapiens

<400> 1839

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ttatgtatta tgcaggtgcc aactcgag 148

<210> 1840

<211> 596

<212> DNA

<213> Homo sapiens

<400> 1840

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ctactagtct ttgtggaatg tgacttgata aggagtatta ggaattgttc atatcaatta 180
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<210> 1841

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1841

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tctcccaaaa aatgtatagt gccttgttt tatgtacagt ttatatacag aaaagtttg 120
tctgcatttt tgatgatggt ttggaacatt atctcgag 158

<210> 1842

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1842

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gattcatgac actgagggca gggagaagaa agaacaccag ccacgcagag aacctcgag 179

<210> 1843

<211> 189

<212> DNA

<213> Homo sapiens

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ctttttcaca gaggggtctt tgagcaggtg tgtgagttta acctagcaat ccattggagct 180
gaactcgag 189

<210> 1844

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1844

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 tgagacagag tctcgcactt gtccccagg caggagtga atggcgact cctggctcac 180
 tgcaacctcc acctcccagc ttcaagcat tctcgag 217

<210> 1845

<211> 326

<212> DNA

<213> Homo sapiens

<400> 1845

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 gtcttgggac agattgaaga aagacctga gcagggtgt tttttgctc tgaaggctgc 180
 cttcctgaaa tctcatgagg ggactatgt tagttcctgc tgtttccaca gttcttagga 240
 aaatgcagcc tatcttcac ctaatttctc tgtcaacttc tgctctgtca actctcgagg 300
 gacatttaaa gcaaccacag ctcgag 326

<210> 1846

<211> 189

<212> DNA

<213> Homo sapiens

<400> 1846

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 atattatttc attttgacat tgacagtaaa ataggttgaa gtatgcttat taaaaatga 180
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<210> 1847

<211> 180

<212> DNA

<213> Homo sapiens

<400> 1847

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 agcctttctg cagtatctga gaaaatgtgg tatgaccatt caatccatgg gcacctcgag 180

<210> 1848

<211> 117

<212> DNA

<213> Homo sapiens

<400> 1848

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<210> 1849

<211> 407

<212> DNA

<213> Homo sapiens

<400> 1849

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 tgtacttaag aatgactggg ttactccaa attgtgtct aaagtacagt cctctttctt 180
 ggacaggatc catgctgcag aatggtgtct ctgattttga gaccaagtct ttgactatgc 240
 actctattca caattctcaa caaccagga atgctgcaa atctctctca agacctacca 300
 cagaaaactca gttttcaaat atggggatgg aagatgttcc cctcgccacc agtaaaaagc 360
 taagttccaa tattgaaaaa tctgtaaaag acctccggca actcgag 407

<210> 1850
<211> 175
<212> DNA
<213> Homo sapiens

<400> 1850
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gcaggacagg gcagtgttcg ggttgaagtc ctgtgttctg atcgggattc tcgag 175

<210> 1851
<211> 194
<212> DNA
<213> Homo sapiens

<400> 1851
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ctagagaatt tgctagtga tttggattgc tttctgaaca tttttctgtt cttctgtagt 120
gctccctctg agcattgtag aagtgttcca gcaccttat gaagaccaca ttcattttgt 180
cagggatact cgag 194

<210> 1852
<211> 204
<212> DNA
<213> Homo sapiens

<400> 1852
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tttgggtgaat accaaaacgt tagtatttta aacatatgct ttagttctga cactgaatct 120
gtagttaaga tatgttatct cggtagtaga gtctcctctt atctgtgggt tctgttacct 180
gtgggtcaact atgggtccct cgag 204

<210> 1853
<211> 199
<212> DNA
<213> Homo sapiens

<400> 1853
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aaataagata tagagccact ggagcacaga ggacaggttc tttctggctg aaggcactaa 120
ggacagtttc accgagaaga ttttgaggag agtcgagcta aaaatgagga ggattttgat 180
agaaggatgg atactcgag 199

<210> 1854
<211> 149
<212> DNA
<213> Homo sapiens

<400> 1854
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catgttataa tcattgtaca gtcattacta cccctcttat ctcttccatg acgtcttttc 120
tgatgtttct tcattcccca ttactcgag 149

<210> 1855
<211> 177
<212> DNA
<213> Homo sapiens

<400> 1855
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ttttgttttg ttttgtttta ttgtttaagt gggaccactt agcttcccggt ttccttacta 120
gttaaagaac agacattaat ttccagttga atgtattttt gcaggcatct actcgag 177

<210> 1856

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1856

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caaaaacttg ctctgacctc tcagctcttc ttcctttccc tgagctgctc ggatctcttc 120
ctcaatcatg gacaaagtcc gctgtttcct ggacctcagc ttgaaaggcc caaccatcac 180
gtcagattct tgagtggcca ggaggaggc tgtgcttctc agctcagctg cctcgag 237

<210> 1857

<211> 257

<212> DNA

<213> Homo sapiens

<400> 1857

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ttcctgctgc cacctgggccc ttgaattcct gggctgtgaa gacatgtagc agctgcaggg 180
tttaccacac gtgggagggc agcccagtac tgtccctctg ccttcccacc tttgagaata 240
tggcagccca actcgag 257

<210> 1858

<211> 238

<212> DNA

<213> Homo sapiens

<400> 1858

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tcttctctgc cgtgcccgtc tgccactctg ccagttctct gctcttctgc tcttgagacc 120
tggggttttg ggtttctacg ggtacaggat agggaggcat ggccggccaa aagcaacact 180
tgagttcgaa aacaggaata cctgttccca tttagggccg caggtttcca agctcgag 238

<210> 1859

<211> 160

<212> DNA

<213> Homo sapiens

<400> 1859

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cagtatttct ttctctgggg tagtagttaa catgaatttt aatctttggt ttgctttgct 120
aataactgtt atattttcag gctatgccca cccactcgag 160

<210> 1860

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1860

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agtgtcatct cctccaagaa gacttttcaa ctctgtaga ccaatgtttc tcaaaccctt 180
tttactcgag 190

<210> 1861

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1861

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tggtcacac atgtagtccc agcttactcg ag 152

<210> 1862

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1862

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<210> 1863

<211> 199

<212> DNA

<213> Homo sapiens

<400> 1863

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tctggtattc tatctaata taaacccagc tttattattc atttcaactc ctgccaaaga 180
catgaggtcg gcaactcgag 199

<210> 1864

<211> 257

<212> DNA

<213> Homo sapiens

<400> 1864

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gctgggctgt gctggaatca ccaacaggca cagaaaaaat gacaacaaaa caacaacaaa 180
accccaaga atatctgtt ctctttggcc aaagttcagg aaaggggagc cccaacagag 240
accagtaca gctcgag 257

<210> 1865

<211> 135

<212> DNA

<213> Homo sapiens

<400> 1865

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atggtggcac tcgag 135

<210> 1866

<211> 189

<212> DNA

<213> Homo sapiens

<400> 1866

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tccctgtctc ctttgagct ttgctttaac caaatattat cttttcagat aggtcttccc 180
tgctcgag 189

<210> 1867

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1867

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cccttcgta tgtttgtctc tttgtctttc ttgtctgttt atgcaattcc actcgag 237

<210> 1868

<211> 307

<212> DNA

<213> Homo sapiens

<400> 1868

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<210> 1869

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1869

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tacttgttct cattccgtat atgagcacia gtaaggttcc agagcaacac aactcgag 179

<210> 1870

<211> 200

<212> DNA

<213> Homo sapiens

<400> 1870

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tctcttctcc agtttcatgt ctccccctt cctcttgctc tgtacccctt ggcccccaag 180
ttctccccca accactcgag 200

<210> 1871

<211> 137

<212> DNA

<213> Homo sapiens

<400> 1871

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ccccggagga actcgag 137

<210> 1872

<211> 196

<212> DNA

<213> Homo sapiens

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 catatcctta ctcgag 196

<210> 1873
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 <212> DNA
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<210> 1874
 <211> 174
 <212> DNA
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<210> 1875
 <211> 106
 <212> DNA
 <213> Homo sapiens

<400> 1875
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<210> 1876
 <211> 246
 <212> DNA
 <213> Homo sapiens

<400> 1876
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 gggtctattt gtttttaaat gaagcccacc aaacctccca agtgcaactc agatttacat 180
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 ctcgag 246

<210> 1877
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 1877
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 gataatttgt ttccaacac agtgatccca aaataatttc tgtggaatat taatattgaa 180
 ttgtcatgga aaattctaaa ctagaatttt attacacgaa agcaacaaca ctcgag 236

<210> 1878
 <211> 385

<212> DNA

<213> Homo sapiens

<400> 1878

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 aacaccctgc cacataccac tcgag 385

<210> 1879

<211> 255

<212> DNA

<213> Homo sapiens

<400> 1879

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<210> 1880

<211> 170

<212> DNA

<213> Homo sapiens

<400> 1880

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<210> 1881

<211> 647

<212> DNA

<213> Homo sapiens

<400> 1881

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<210> 1882

<211> 545

<212> DNA

<213> Homo sapiens

<400> 1882

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aagctctacc tggtaggcag cttgtggttg tggtcagaga aagctttaat cataagtagg 180
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tactttttca tagtacccca aattctacta gagataagtt tgtgggaaga gtgccaaata 300
gaaggtagac tacaagtaga aggcaaggag gtagcatatg tatctggaaa acagtaaata 360
aatcagtgca tgtaactgaa aaatataccg tcagccacac tgctctccaa aactgtattt 420
ccagcggtct cctggacctt ctgggcaccc ctaattgctt attattatta ttttcagaaa 480
gtgtctcact ctgatgcagt ggcgcgatct ccgctcacca caaccttcac caaccaggc 540
tcgag 545

```

<210> 1883
 <211> 175
 <212> DNA
 <213> Homo sapiens

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<400> 1883
gaattcgagg ccgcgtcgac tgagtccttt ggtaacggtc ataatactca caaggaaata 60
aatattcagt tccatggcat ttgcaagaca catgttcttt aggacagtta atattatgac 120
acatctgttt tattttgtta ctaaggcagc ctatgttaaa gggctctcgc tcgag 175

```

<210> 1884
 <211> 336
 <212> DNA
 <213> Homo sapiens

```

<400> 1884
gaattcgagg ccgcgtcgac cctgtgattt ctccaccagct tcctttccac ataggccgct 60
gcttctcttc ttccaagggt ttcccccgtt ttgctctct ggaggttgta tcctgggtgt 120
taggagactg ggttccggac acattcccca cagaaggata gcaggacctt agaagatctt 180
ttctctcttc ttccgtggtt cctcttctt gcaagagggt tgaataggat ggtctctaaa 240
atcctgttgt tttcttggtt tatattaaac caggccataa tgataagaac ctgctctgaa 300
ttcacaacat gtatttatac aacagcaaag ctcgag 336

```

<210> 1885
 <211> 536
 <212> DNA
 <213> Homo sapiens

```

<400> 1885
gaattcgagg ccgcgtcgac aaggcatcca aaagataggt aaatccctac tggactttgc 60
tgggtgtctt gttgcatagt taccgtggag taagtaatcc tagttattta tatatattta 120
tcatttaact gcttgccttc cccacaaagg aaccattttt tatgtccata atctattttt 180
caccaatatt gggggtccag cttcaatacc aagtgttaaa acagattcaa cagttagcca 240
cgctaactaa ctttaacttc tgttacattt gtacctcagg atcactatca gctgaagttt 300
taccattacc attagaagat atagtcaagg tcaatgccag agtcaactgt gccacccagt 360
cagaagttac atatccagc ccagctgtgg aaagcttatt cctaacagtc ttatctcaga 420
tcataagaaa caaccctaat ttaaatttta caaatgcccc aaatcctgta aggttttttc 480
acaacctaac ctacagacgc caattcccaa ttgttttcac ttcccaccat ctcgag 536

```

<210> 1886
 <211> 411
 <212> DNA
 <213> Homo sapiens

```

<400> 1886
gaattcgagg ccgcgtcgac cacagaaatg cagggaccat tgcttcttcc aggcctctgc 60
tttctgtgta gctcttttgg agctgtgact cagaaaacca aaacttctg tgctaagtgc 120
cccccaaatg cttctgtgt caataacact cactgcacct gcaaccatgg atatacttct 180
ggatctgggc agaaactatt cacattcccc ttggagacat gtaacgacat taatgaatgt 240
acaccacctt atagtgtata ttgtggatcc aacgctgtgt gttacaatgt cgaaggaagt 300
ttctactgac aatgtgtccc aggatataga ctgcattctg ggaatgaaca attcagtaat 360

```

tccaatgaga acacctgtca ggacaccacc tcctcaatgg caaccctcga g 411

<210> 1887

<211> 130

<212> DNA

<213> Homo sapiens

<400> 1887

gaattcgcgg ccgcgtcgac gtgtgtgtag gatgccacaa aaaaacccca gggtcgggct 60
gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgttaga tgccacacac aaaccccggt 120
gccgctcgag 130

<210> 1888

<211> 495

<212> DNA

<213> Homo sapiens

<400> 1888

gaattcgcgg ccgcgtcgac taaaccgcct cctgtgtgct tcatggccat ggtcctttct 60
gctgtgtgtt tttctttttt ttctcaaccg tctcttttct ggctccctta tttctctgtc 120
tgctcccggt tccctctttt gccttgggtg tttctctctt gccgtcccggt ccacacgctt 180
cccgggttcc tgcccgccca gggcattgcc acagggaagt accacgccgc ggtgctcacc 240
aacagcgctg agtgggaggg cgctgtgtgt aaggcgggca ggaagtgtgy ggacctggtg 300
caccgctggt tctactgccc cgagctgcac ttcagcaggt tcacctcagc tgtggcggac 360
atgaagaact cagtggcggt aggtttggag cctcgaaact ggagcctgcc acatgggtgg 420
agccgggagc gcggagccct gccttcaggg tgctggtgca cccagggagc tggggccccc 480
cagaagcaac tcgag 495

<210> 1889

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1889

gaattcgcgg ccgcgtcgac gccttgacac acttatagaa tgggtggagag aaaagaatgg 60
ttccttttgt tccgggctta ttatcgtatt agacagcgaa aattcaaccc cttgggtgaa 120
agaagtgagg aaaattaatg accagatatat tgcagtgcac ggagcagagt tgataaaaac 180
agtagatatt gaagaagctg acccgccaca gctagggtgac tttacaaaag actgggtaga 240
atataactgc aactccagta ataacatctg ctggactgaa aaggagcgca cagtgaagac 300
agtatatggt gtgtcaaac ggtggagtga ctacactctg catttgccaa caggaagctc 360
gag 363

<210> 1890

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1890

gaattcgcgg ccgcgtcgac gcagacgatt tgtagttacc tagattgtga acgatcttgt 60
gaagctgaca ttttgaagaa caccagttat aagggtattt ttcagttaat gtgcagtaaa 120
agttgctgtg tttatttcca taaaatttgc tggaaaaagt tcaagaattt aaagtatcca 180
ggtgaaaatg atcaggtatt atattcgttc ttaaaactac aacagcattt ctctctctac 240
cctttctctt tttgttctct tcccatcggt ttcttctgtt tcataacttc cctctgctt 300
tttacttctt ccttttttct tttttcttca acttctctt tttgttcttc ccaatctctc 360
gag 363

<210> 1891

<211> 425

<212> DNA

<213> Homo sapiens

<400> 1891

gaattcgcgg ccgcgtcgac gccggaggag aaggaagga aggggcatca cagggcaaag 60
 gctgggaggg ttcaagtctc aagatagaga ggccacggcc agctgctcac ccaaagagaa 120
 agcactttta actctagagg tacccaacag gcaatataag atggatatta aggtcgtaga 180
 ctctagagac aattggaact gaagtctaaa cagctagcag gaacttagac aagtcaatta 240
 atcattctaa gcttgcttcc ttgtctgcag aatggaarag taatagcctc atcatagtgt 300
 tactgtgaaa ggtaaatggt tataacatgc ttactaaaat gcctgttttt atagtaagt 360
 ctcaataact agaagctatt actcattcat gtattcaata catattactg agtgcttate 420
 tcgag 425

<210> 1892

<211> 304

<212> DNA

<213> Homo sapiens

<400> 1892

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctataacagt gcaataaggg 60
 aaataacatg caggatatct actttattat ttctctacac ctttcatggg ggtgggggct 120
 acagatgggt cctcactggt gcctgacatg tccgggagtg gctgatgttg cctgttggac 180
 tgaacctgt gtggtatttg agacacactc ccacccatc aggcctctgt gcacctacc 240
 tggatccaga ccaccacagg acatcagggg agtttgctg agaccccaag tgcgcagtct 300
 cgag 304

<210> 1893

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1893

gaattcgcgg ccgcgtcgac ccgtctccca catctttctc gctgggatgc gcttgccttc 60
 ctgctgaac tctagtgtga tttctctgt gctggggtca ggggagctc aactgctgac 120
 agagaatgag gacttttcca cccacacccc cccacttctt gttctgaat gctgctgtcg 180
 ggctgcctgg gccaggtctc atggggccca gctggaggct tccctcgag 229

<210> 1894

<211> 437

<212> DNA

<213> Homo sapiens

<400> 1894

gaattcgcgg ccgcgtcgac cctgcccag cctgttttat acacaccccc ttatataggg 60
 ttgtccctc tatgtccttt cttccctttt cttttctac ttggtttcaa aatcatttgg 120
 ctatgagcaa gttataacta taactggacc tgacttttgg caatattcac aactatttag 180
 gagttcttgc aaagacagaa aaatcaacct acaagttgtt ttcaaaatac tactcatttt 240
 ctttagttga cattccacgt ttttagacat ttaattaaat atttatgttc aatttggttt 300
 cgtttgttt tttgtgttt tttttgagac aatgtctcgc tctgttgctt aggttgagg 360
 gcagtggat gatcatggct cactgcagcc ttgacctccc aggtctcagc aatcctccca 420
 cttcagccac gctcgag 437

<210> 1895

<211> 279

<212> DNA

<213> Homo sapiens

<400> 1895

gaattcgcgg ccgcgtcgac gtaactaaat acctctttac ttcactgcta ttataaggt 60
 cccttttggg ttttgtttat taataatcat ctagaattca aataaatgca tatgccactc 120
 ttgccactcc tcttcagcat agtactagaa gtccatagca gacagtcag acaagagaaa 180
 gaaataaagg gcattccaaat cggtaaagag gaagtcaaa tgtcagtgtt tgccgactat 240
 atgatcattt accttcaaaa ccctaaggat aaactcgag 279

<210> 1896

<211> 252

<212> DNA

<213> Homo sapiens

<400> 1896

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gaattcgcgg ccgcgtcgac aggaaccaca gcaatgaatg gctttgcac cttgcttcga 60
agaaaccaat ttatcctcct ggtactatct cttttgcaa ttcagagtct gggctctggat 120
attgatagcc gtcttaccgc tgaagtctgt gccacacac caatttcacc aggacccaaa 180
ggagatgatg gtgaaaaagg agatccagga gaagagggaa agcatggcaa agtggggacac 240
atggggctcg ag                                     252

```

<210> 1897

<211> 127

<212> DNA

<213> Homo sapiens

<400> 1897

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gaattcgcgg ccgcgtcgac cctgtcctgt gctaggctct taacgtcctt cccagatggt 60
atgtcccttc ccttgggtggc tgctgcttgc tgccacattt taccttgccg tccgcacca 120
tctcgag

```

<210> 1898

<211> 441

<212> DNA

<213> Homo sapiens

<400> 1898

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gaattcgcgg ccgcgtcgac aaataaaca cttagtact cttagatttc agaatgcct 60
tttaggatgg tcacttgtgt ttggggacaa atggcaagca gttatttctg gagaggtagt 120
gaacatggcg attccactca ctggctggtt gggctccttc ttccctttcc tcccgagag 180
agccccctgt tgagctctgg cttggccctt gaagtgtgc cggctgccct ggggaacttt 240
ccctgggggt caactgtgta ttgttcaaat ggcaagccag cagccgcgtc aacacctgct 300
cctcacacac acgtgcctg tcacctctg cagctgcgtc tgcgccccg ccacacacac 360
actgcctctc accctctgcc actaatctgg ctccctcccc tgagccccct ctccctgacc 420
tgaccagggg tccctctega g                                     441

```

<210> 1899

<211> 313

<212> DNA

<213> Homo sapiens

<400> 1899

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gaattcgcgg ccgcgtcgac gttgaattct agcgtgtgga gagaagaaag ccatagagtt 60
atcagaactt tgaggccttt ggttgcatat ggagtttatt ggatagat ttttggttc 120
ttggtttttc tcagtctaag tgataataaa aatgataact aacatataca cagcacaatg 180
cctggcattt tcaacatggt ttccatctac tgagatattt aacttgccaa gccatcttag 240
gtatacagtt acagtagtcc tctgccttat ctggtttcag ttaccacag tcaaccacgg 300
tccggaactc gag                                     313

```

<210> 1900

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1900

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gaattcgcgg ccgcgtcgac accgtcgatt gaattctaga cctgcctcga gccatccgcc 60
caccacacac cttcttattt tctgcctag gtctgtctc tcaatttttt aaaaaaaaaa 120
ttgtattaga atatgcataa cataaaagtt accattttta ccatcatggg sccttggttg 180
tttggttggt tgttggttg tttgagacag agtcttgctc taccaccac gctcgag 237

```

<210> 1901

<211> 315

<212> DNA

<213> Homo sapiens

<400> 1901

gaattcgcgg ccgcgctcgac gtgcattcgg tatacaccac gggggccctg gaaccaagac 60
ccctctcttc tgccttgctt actggctgct gtgactctta ggagctctcc tacttggtcg 120
gcggtgctct cccagctctcc ttgtgtgttt cctcctttgc tctgctcttt aatgttagcc 180
agcatccagg gctcattcct gggccctctt ctattctctc tacacatgaa cctgggggct 240
ctctcccggt ccttggtgt aaataccagc tataggcta tgacttccca gttcaatct 300
ccagccagac tcgag 315

<210> 1902

<211> 304

<212> DNA

<213> Homo sapiens

<400> 1902

gaattcgcgg ccgcgctcgac gtgagaatca cttgaacctg ggagacagaa gttgaagtga 60
ccccagatca caccactgca ctccagcctg ggcaacgagc aaaactccat ctgagaaaaa 120
aagattgggg atttaatttt cgttaggctt tacgtcttga gaagataaga tctagttctt 180
tttttctgt cttttaacat ttatgttaa aatatacaag gaatgcagaa tgcattatta 240
tgctgttttt atgcagtttt atcttttgag tgccttagat gcacttctga ccccatccct 300
cgag 304

<210> 1903

<211> 364

<212> DNA

<213> Mus musculus

<400> 1903

gaattcggcc aaagaggcct aatttaaaag aacacaaaac tattaatgat taatatgtta 60
aaatgtacaa tggtagttaa taactttctt tgacttaatt actgctttga actttattaa 120
tgtagattt ttgtaggcat ttttggtgat tcttttacta agtattttta atttaacgaa 180
ttctagggtg gctgtgctgc taatggatac ccaggggtgcc tttgatagcc agtcaaccat 240
taaagactgt ggcacagtgt ttgctctgag cactatgacc agctctgtgc aggtatataa 300
tttgtctcag aatattcaag aagatgatct tcaacatcta cagttattta cagagttgct 360
cgag 364

<210> 1904

<211> 500

<212> DNA

<213> Mus musculus

<400> 1904

gaattcggcc aaagaggcct agggaggaaa gtttcatcag ccctctggtg ctctactgcg 60
ttctggctgc cactccaact gctattattt tcattggtga aatatccatg tatttcataa 120
agtcaacaag ggagtcctg attgctgagg agaaaatgat cctgacaggg gactgctgct 180
acctgagccc ctactcga aggatcatca ggttcatcgg ggtatttgca tttggacttt 240
ttgctactga catttttgta aacgcggggc aagtcgtcac tggtcaccta acaccatact 300
tctgacagt gtgccagcca aactatacca gtacagactg ccgggcacac caacagttca 360
tcaacaatgg caacatgct actggggacc tggaaagtga agaaaaagct cggaggtcct 420
ttccctccaa acatgtgct ctgagcattt actccgctt atatgccacy atgtacatca 480
caagcacaat caaactcgag 500

<210> 1905

<211> 514

<212> DNA

<213> Mus musculus

<400> 1905

gaattcggcc aaagaggcct atttcatcat ggagctctcg cggcggatct gtctcgtgca 60
 actgtggctg ctgctcctat cgttcttact gggcttcagc gcgggatctg ccatccactg 120
 gcgggaaccc gaaggcaagg aagtatggga ttatgtgact gtccgaaagg atgcccacat 180
 gttctgggtg ctctattatg ccaccaaccc ttgcaagaac ttttcagagc tgcccctggg 240
 catgtggctt cagggtgggtc cgggtgggtc tagcactgga tttggaaact ttgaggaaat 300
 tggccctctt gacacccaac tcaagcctcg aaataccacc tggctgcagt gggccagtct 360
 cctgtttgtg gataatcccg tgggcacggg ctccagctac gtcaacacaa cagatgccta 420
 cgcaaaggac ctggacacgg tggcttccga catgatggtt ctctgaaat ccttctttga 480
 ttgcataaa gaattccaga cggttcaact cgag 514

<210> 1906

<211> 444

<212> DNA

<213> Xenopus sp.

<400> 1906

gaattcggac tactacaggt ggcctacacg ctttttcccta gcctgaagat ctctgtctgc 60
 atgatgagtc ttaagacggt ggggtatcca tttttatcca gtttgttaca tggaaatcgt 120
 accagcgatt ttgaacgcac gtctgtgagg tggaaaccaga aggctgtttg aactgtggga 180
 ttggtggttc caaagaatga gagtctttgg tatgagcgag aacaagagcg tatgcagaga 240
 ccggtgggtg atttttgaat actaagttgt caatgtgtct ctcaatccag tggcaatgat 300
 gagcgtgtgc agagagcaat gggagcaagt aacgtacgaa tgtttcttgc attcaaagga 360
 ctttagctta ttgaaagac tgaggctaaa tctatttgc tgaaacagtt tgtacattta 420
 ttttcagcct gccctaaact cgag 444

<210> 1907

<211> 337

<212> DNA

<213> Xenopus sp.

<400> 1907

gaattcggac tactacaggt gggaaaagca gaagtatctg gaagagaaaa tgacacaaag 60
 tgtcttatcc aagattatca aaaccggata tgcagcactc caactggagt acttcttcac 120
 cgccggcccc gatgaagtac gcgcctggac tatcgagaaa gggacaaaagg ctccctcagc 180
 tgcagycag atccacacag atttcgagaa gggttttatt atggcggaaag taatgaaatt 240
 tgacgatttc aaagaagaag gcacagaggg atctgtcaag gctgcaggaa aatacagaca 300
 acaaggcaaa aattacacag tagaagacga cctcgag 337

<210> 1908

<211> 352

<212> DNA

<213> Xenopus sp.

<400> 1908

gaattcggac tactacaggt gcacatacag gttgggcaga ataacaatgt ctggaacaag 60
 gaaagtggac tcattactgc tactgggtcat acctggactg gtgttctct tattacccaa 120
 tgcttactgt gcttctgtgt agcctgtgctg gattcccatg tgcaaatcta tgccatggaa 180
 catgaccaag atgcccaacc atctccacca cagcactcaa gccaatgcca tcttggaat 240
 tgaacagttt gaaggtttgc tgaccactga atgtagccag gaccttttgc tcttctgtg 300
 tgccatgtat gcccacattt gtaccatcga ttccagcac gaaccactcg ag 352

<210> 1909

<211> 261

<212> DNA

<213> Xenopus sp.

<400> 1909

gaattcggac tactacaggt gcttctgact attatggcta tgacgattac tatgattatt 60
 atggctacga ttaccataat caccgtgggtg gatatgatga tctttctat gggtacgaag 120

actttcaagt cggagctaga ggcaggggtg gtagaggagc aaggggtgct gctccatcca 180
 gaggtcgagg ggctgttctt ccccggtgga gagccggtta ttcacagaga ggaggccag 240
 gatcagcaag aggtgctcga g 261

<210> 1910

<211> 408

<212> DNA

<213> Xenopus sp.

<400> 1910

gaattcggac tactacaggt ggtggttga gcatggagct tgaagagttc gagcgttaata 60
 attccagag tcgctactg agctctccg tactcgagat atgtcggact gaggactgct 120
 gccttgggat agatgaggcc ggacggggac ccgtgttggg tctatggtt tatggaatct 180
 gctactgtcc tgtggccga aagaaggacc ttcaagattc aaaggtggca gactccaaga 240
 cactgagtga agctgatagg gaacgactgt ttgagaaatt aaatggttct tcagattaca 300
 tcggctgggc cttgcataa ctgtcaccaa atatcatttc caccagcag cagcagaggg 360
 caaaatacaa cctgaatgct ttatcccatg acaccgcgaa gactcgag 408

<210> 1911

<211> 444

<212> DNA

<213> Xenopus sp.

<400> 1911

gaattcggac tactacaggt ggagtcagac accatgggtga agattgctt cagttcgccc 60
 ttccgagga aaaaacctag caaggacgtc gaggttttgg tggcagaaac ggatactgag 120
 gttgcagctc aagggactga aaattcaact ggaagatgcc tgcttacct gttgggctt 180
 gctttcatct tagctggact aatagttggt ggtgcttga tctataaata ctttatgccc 240
 aggcaaacg tctatgaagg agtaatgtct tattccgagc agcatgatct tgttgaggag 300
 ccttattacc ttctgtctc agaagaagcc gatatccgag aagatgacaa tattgcactt 360
 ataactgttc ctgtaccaaa ctttgcagaa agtgatccag cagcgatact tcatgatttt 420
 gataaacttc tgacagacct cgag 444

<210> 1912

<211> 349

<212> DNA

<213> Xenopus sp.

<400> 1912

gaattcggac tactacaggt gcgagatata gctgaaaatg cggtaacctta gtgcagctgg 60
 gctgcttgg ctctctgtat gtctcttatt tcttactcca ggtctgccc acacaggact 120
 tggtcgagga tttggggatc atatccattg gagaactctg gatgatgga agaaggaagc 180
 agctgctagc ggcttacctc ttatgctagt gatccacaag acatgggtgc gagcatgcaa 240
 agcattaaag ccaaaatttg cagagagcaa ggagatttca gaactgtcgc ataactttgt 300
 gatggttaac ttggaggatg agggaggaacc aaaagatgat gccttcgag 349

<210> 1913

<211> 282

<212> DNA

<213> Xenopus sp.

<400> 1913

gaattcggac tactacaggt gtgagaagtc aacatggcag agttgtggct atcactttct 60
 tgcatgttct ccttgcctct actgacaaat tcatctccac ttaccttcca ggaaagaatg 120
 ctcttaaaag ccttggggct gaacaccaga ccaaacccca ttgctccagc tctgtacct 180
 aaatctttaa gagacatttt tgagaagggg ataaaccagg acaatccctg catgatggaa 240
 ggtttcggag tacctggaaa tattgtccgc attccactcg ag 282

<210> 1914

<211> 450

<212> DNA

<213> Xenopus sp.

<400> 1914

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gaattcccat agcaacaaac agtagaggat gttgcagttt cgacctctca gaaacgcaca 60
agttctgcaa cactgaacca gccagctagc actccacagg gccc aaagtc tcttatggaa 120
gtaaacaatg acagaatgca tctgatttta ggcacagca ttcagttctt ctgtgcacca 180
cgacctgagg aacccattga acatgtgact gcgtgtcttc aggctttaca tatactgctg 240
gaggctccat tttccagaag tcatattgca gaagaccagg ttattggagt ggagcttttt 300
aatgtcctcc atcgcttctt cttaacttgg gatacctctt ctgtgcaact gctggtgact 360
actgtagttc aacagatagt gagggctgct caacacaata tacaggagca aagaaatgct 420
caaaataaag atgacacaag cgaactcgag                                     450

```

<210> 1915

<211> 125

<212> DNA

<213> Xenopus sp.

<400> 1915

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gaattcccat agcaacaaac agtaattccc atagcaacaa acagtagttc ccatagcaac 60
aaacagtaat tcccatagca acaaacagta attcccatag caacaaacag tatggcggtc 120
tcgag                                     125

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<210> 1916

<211> 461

<212> DNA

<213> Xenopus sp.

<400> 1916

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gaattcccat agcaacaaac agtagggagaa agaagtgcac cactaacaag accaactgac 60
agatcggttg gccctattcc aatatcgcca actcaaggat gaagtgcatt gttctcctgc 120
tggtttgctt ctctatcgga tgggttctact ccaacccac aaaaaaagtt aacattgcaa 180
aatttgagga agctcacag agctcagatt acagacctga gtacaatgct gctgctgcta 240
tcgatggtga tagagactca aatatgatgg cgggttcatg ctcccttact ggtaacgaca 300
agccatcttg gtggcagttg aacctaaagc acaggtacaa agtggagaag gtggtgatag 360
tgaacagagg agactgctgc agtgagcgcc ttttgggagc ccagatccgt gttggattca 420
cagccaatct gaagaacca ctatgtggca cccacctcga g                                     461

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<210> 1917

<211> 446

<212> DNA

<213> Xenopus sp.

<400> 1917

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gaattcccat agcaacaaac agtagggtaa ccaaggcacg gaagtctggg gaatgaaagt 60
ctgaaggaac actgttacca atattaaaac agtcactttc cttccagcct aacaatattt 120
tttatcatta aacaaattgt cagacgaaca ctattacaaa cgtggactaa agaagcagaa 180
acgtgacttt tctttttgaa gcccagcctg caatgaagca tcaacatatt ctagttttat 240
ttttgctttc catggctgtg attagttttt tggtagatcg caggattgtt aagattccca 300
catttatata ttgaagtca aattgcgagg aggtgacaaa agaagaaaca gaacttcaaa 360
aagaagtga aacaatcttc aatgaagtag acagttcaat tccgaagatc agcttcactc 420
actttgataa cacaacagtc ctcgag                                     446

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<210> 1918

<211> 261

<212> DNA

<213> Xenopus sp.

<400> 1918

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gaattcccat agcaacaaac agtacttggc ggtctcgagc ctttcaggca gttcccagac 60

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atcttcagtt cgcgcagcgt gtgaatatc tgaaccaaga acttagcaga gggccctcgc 120
 ggggagttgg ataaccacat atacaggccc tgcttcttct tggcttcaaa atagatgcac 180
 ttattacagt tcttcatttc acagacctca ttaccacaa acagcttgct cttacgggcc 240
 atttcggtt ctgctctcga g 261

<210> 1919

<211> 383

<212> DNA

<213> Xenopus sp.

<400> 1919

gaattcccat agcaacaaac agtagagagg gaccacattt actccattt actcctctgg 60
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 agcctctccc acttctctca ctgttccat tggcagttgt ccattttgag ccgggcaaat 180
 ctcaagaggg agttcagagc cgcattgttg gaggacacga tgcttcaaa ggaatgttcc 240
 cgtggcaggt cagcctgagg taccaaaata aacacgcgtg tgggtgcgact ctcacagct 300
 caaactatat cctgacagct gcacactgct tccccctcaga ccacataatg agtgattact 360
 ccgtaaacct gggggctctc gag 383

<210> 1920

<211> 478

<212> DNA

<213> Xenopus sp.

<400> 1920

gaattcccat agcaacaaac agtagccaga caagttgggc tcaggttgta cagacaaaat 60
 ggcagagaaa gggctctcgc ggtaggtgac ctccattgtg ttggggaata ttgttatatt 120
 gctctctggc ctgcgctgt ttgcagagac aatctgggca accaccgacc cctacaaggt 180
 ctatcctatt ctgggggtga ctgggaaaga tgacgtttt gccggcggtt ggattgccat 240
 attctgttga ttctcattct ttatacttg agtctttggc atcctcgcag tgcagagagg 300
 gagtgcact atggttctga cgtacttggg gctgatgat atcgtctata tatttgatg 360
 cgctcctgt atcattctct tcacacacag agattacatg atcaactcca atgtgattaa 420
 gggtcagatg ttgacgtact actcagacag cagcaccgcc cagggaaggg agctcgag 478

<210> 1921

<211> 360

<212> DNA

<213> Xenopus sp.

<400> 1921

gaattcccat agcaacaaac agtaccata gcaacaaaca gtaacaaaca gtatgcaaaa 60
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 tgctctgccc agtataaaac gatggggacg tgctgccttt gagttcattt ctctacctga 180
 ggaatccact acttcacgt tgttttaag tctctcgatc atgatttaat ttgattggac 240
 acttggtaga ttaaggagat gcaggatctt ccaactgcac aggcattgtt catgatattc 300
 tgctgtgtct gaaactgttg cattcatgat ctccatttta tacgagttct tatgctcgag 360

<210> 1922

<211> 335

<212> DNA

<213> Xenopus sp.

<400> 1922

gaattcccat agcaacaaac agtacagtga gcatgtctga tcaggaagcg aaaccatcta 60
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 aggacagcag tgaaattcac ttcaaggtag agatgacaac gcattctcaa aagctgaaag 180
 agtcatactg tcagagacag ggcgttccaa tgaattctct caggttttt tttgaagggc 240
 aaagaatctc agatcaccag actcctaagg agctcggaat ggaggaagag gatgttattg 300
 aagtttatca ggaacagact gtgggtccac tcgag 335

<210> 1923
 <211> 221
 <212> DNA
 <213> *Xenopus* sp.

<400> 1923
 gaattcccat agcaacaaac agtacgatca ggagaaagaa gcgattattc ggcgagcgg 60
 tcgagctttt cccgatttcc ctccccctgg gatctgtttt agagatatta ctccgtgctc 120
 taaagaccct ttggctttct gctctgccaat tgatctcttc gagagacacc tgagggcaca 180
 ttttccaaag attgatgtta ttgctgggct tgattctcga g 221

<210> 1924
 <211> 358
 <212> DNA
 <213> *Xenopus* sp.

<400> 1924
 gaattcccat agcaacaaac agtacaacaa gttcttatgg gaagcaaac aaaaaactgt 60
 atactgtatt ataataaaaa aaaaaagagg ttattttggg acagtatagt gttaaaataa 120
 gcaaaataag atttcagtat taaacttgag atttctagta ttttttattt gacaaatgac 180
 tttaatcttt tcatctctgg ttatatgggt gccctcccc cccttaccaa agtggtatat 240
 tatatatatt tatttttctt ctactgctgt aaatttatgt tgtgggatgt taacagcaga 300
 gagaggggtc ggcaagtggg gttcttatcc tactaaccga gtgcacagac cctcgcag 358

<210> 1925
 <211> 175
 <212> DNA
 <213> *Xenopus* sp.

<400> 1925
 gaattcccat agcaacaaac agtaagcggc tgcagcttta gtggaggagg agacgagaag 60
 atatcgacct acgaagaact acctgagtta tttgccacc ccagactatt ccgcatttga 120
 gactgaaatc atgaggaacg agtttgaaag accttcggcg cgccagcccc tcgag 175

<210> 1926
 <211> 472
 <212> DNA
 <213> *Xenopus* sp.

<400> 1926
 gaattcccat agcaacaaac agtactcagg gaggacagaa gtgactcaga aaatgaagga 60
 cgattctgga gtccggtgtt accagtcctat cattatcttc ggcaatgtgg tcatggggct 120
 ctgtggtttg gccctggcgg ccgagtgcat ctctcttttg tcagaccaga gtggcatcta 180
 cccgctgctg gaggtactg acaacgatga catatttggc gccgcattga ttggcatctt 240
 tgccggattc tgtctcttgg tcttgtctat cgtcgggac attggcatca tgaagtcgaa 300
 caggagaatg ctgatggtgt atctcctcct gatgttcatt gtgtatgcct tcgaagtggc 360
 ctctgccatc actgctgcaa ctcaacaaaa ttttttcatt ccagagctct tctgaaaca 420
 gatgctagaa ctttaccaaa atcccaaccc aatcaacaat gacaacctcg ag 472

<210> 1927
 <211> 530
 <212> DNA
 <213> *Xenopus* sp.

<400> 1927
 gaattcccat agcaacaaac agtataacgg ggacctctgc ttcagttggg ttaaatcatg 60
 aacaaacgct cgctactttt gtgccttggc ctatgggtag cctgcacatt aagcaaaccc 120
 acagagaaga ggatcgtgtt catcatgact ctacagctag tggtaaagtt catgatgatg 180
 cacaaaattt tgactatgac catgatgctt ttctgggtgc cgaggatgca aaaacatttg 240
 atcagctaac acctgaagag agcaaggaga gactgggaat gattgtaggt aagatagact 300

tgataatga tgggtatgtg acggaggggg aactgactgc atggatcaag aaagcccaaa 360
 agaagtatgt gtacgacaac gttgagcggc agtggcagga gtttgacctg agccaggatg 420
 gactcgtatc gtgggatgag tacagaaatg tcacctatgg cacttacctg gatgatcagg 480
 atccagacaa tagcttcaat tacaacaaaa tgatgatgaa gaggctcgag 530

<210> 1928

<211> 479

<212> DNA

<213> *Xenopus* sp.

<400> 1928

gaattcccat agcaacaaac agtaggaaga tgccgctcgt tacagctctg aggctcgggg 60
 cagcgctaag gtgcctcgtc ctggtggcgc aagtccagag tcaaggatgc aaatgtagaa 120
 cgcactacat gggtaaatgc gataacagcg gtgcattctc agattgtcag tgtaccctca 180
 ccatagggcc cgattcccaa cctgtgaact gctcaaaatt aattcctaaa tgttggctga 240
 tgaagagaga gagccttggg acaaaggcag gtcgcagagt taaaccagca caagcactta 300
 ttgacaacga tggactgtac aatccagagt gtgatactaa tggggtgttt agggcccggc 360
 agtgcaacaa tactgacacc tgctggtgtg tcaataccgc cggggtcaga agaaccgaca 420
 aaggggacaa aaactggaag tgcccggagc tggtcagaac taactgggtg attctcgag 479

<210> 1929

<211> 345

<212> DNA

<213> *Xenopus* sp.

<400> 1929

gaattcccat agcaacaaac agtaatcagc atgcagctcc tgtggatcac cgctgtgcta 60
 ctctcatctt ctggtgccat agctcagaat acttcctcgg cagatggggg tcttactcca 120
 cttagtacat ctgtgataat tgcatttcca ggatgcaaag actccggaaa gactgttaac 180
 ctgatcgtag caaatggcac aactactgta caaaatattt cctccagggt accacagtgc 240
 cgctctaaac gagatgttgt tgtgactaat aattcacagt ctggtaatgt gcagactgtg 300
 aatgtgggct atcaaatata aaacctacaa ccagggtgacc tcgag 345

<210> 1930

<211> 324

<212> DNA

<213> *Xenopus* sp.

<400> 1930

gaattcccat agcaacaaac agtagaagaa cagtacgaag tgtgtgcttc tgggaacaga 60
 gacatcatga gtctacagtg gacggctgtc gcaacctttc tgtatgtgga agtgttttta 120
 gtgttgctgc tgtgcattcc ctctatttcc cccacaagat ggcagaaaat cttcaaatct 180
 cgcttggtcc aattgttagt gtcatatggg aacacgttct tctcgtctct gatagtatt 240
 ctggtgctgt tattactaga tgcatttcgg gaaatccagg aatatggagt cggggagcag 300
 gtggatctta agaataacct cgag 324

<210> 1931

<211> 328

<212> DNA

<213> *Xenopus* sp.

<400> 1931

gaattcccat agcaacaaac agtacaagag cgtgtgtctt tggcttattg tcaccatggg 60
 ggaagctgac cgcccaggca aactgtttat tgggtggtctg aacacggaga ctaatgagaa 120
 ggtctgtggg gccgtgttct gcaaatatgg acgtgtggtt gaagttcttt taatgaaaga 180
 cagagagaca aacaagtcaa gaggttttgc cttgtttacg ttgaaagcc ctgcggatgc 240
 caaagatgca gctagagaat tgaatggaaa ggcactggat ggcacaccta ttaaggttga 300
 gcaagcaaca aaaccatctg aactcgag 328

<210> 1932

<211> 403
 <212> DNA
 <213> *Xenopus* sp.

<400> 1932
 gaattcccat agcaacaaac agtactggga agggtttagt aacatcagcc ggcataatcgc 60
 tacgaatatg agacgtata gcttcgtccc ttacttttac ccggcgact ttttcattgct 120
 actgataatg tgcgttttca ctccagtaaa aagtgaata attaccttag agagtggcaa 180
 tatagatgac attttaagaa atgctgatgt tgcttttagt aatttctatg ctgactgggtg 240
 ccgattcagt caaatgctgc accctatacc tgaagaagca tctaataaa tacaagaaga 300
 atatcttgat aaaaataaag ttgtttttgc aagagtggac tgtgatcaac actctgaaat 360
 agcacaaga tacaggatca gtaaatatcc tacactactc gag 403

<210> 1933
 <211> 280
 <212> DNA
 <213> *Xenopus* sp.

<400> 1933
 gaattcccat agcaacaaac gtaacaacac aagccctaca ggaagagaga tgggtacagt 60
 ttggccctgg atattgcttag ttttacaggc ttcttggact ttcccatgc actttaggaa 120
 gcataatgaa ctcacattgc tgagaacaa agtggaagc catggagatc ccaataactt 180
 catcaacaa agcagagcag atactccccc taaggaaaga gtgggacact tcccggagat 240
 gactggtggg agacgtagca acagacagaa cacactcgag 280

<210> 1934
 <211> 338
 <212> DNA
 <213> *Xenopus* sp.

<400> 1934
 gaattcccat agcaacaaac agtaaaagac aggaggcagc actgacactg gtaaacacat 60
 caaagagcat gattactaca ctccactagg agagtctcgt gtggatagag aaggatcccc 120
 cgttctgctc aattgcctta tgtacgagac gtgctattat cgctttgggc aagtctacac 180
 agaagccaaa cgccctccag gttatgacag agtgagaat gcagaaatcg gaaataaaga 240
 ttttgagctt gatgttctgg aggaagctta caccacagaa cactggctgg tcagaatata 300
 taaagtaaaa gacctggata atcgcggggt atctcgag 338

<210> 1935
 <211> 118
 <212> DNA
 <213> *Xenopus* sp.

<400> 1935
 gaattcccat agcaacaaac agtagcttgg cygtctcgag gtggtgtgtg tgtttaggga 60
 ttttttgttt tttgtttttg ccagaatgag gagatttttt tgttttgttt ttctcgag 118

<210> 1936
 <211> 541
 <212> DNA
 <213> *Xenopus* sp.

<400> 1936
 gaattcccat agcaacaaac agtacatgac tggagtcttc ctgctcctct ggcctccat 60
 gctggccgcc gccgcgcctc ttgacatcgg attatccacc aagtgcgttc ccattcccaa 120
 agagatggcc atgtgcaatg acgtcggtca ctggagatg cggttgcaa accgttggg 180
 acacactaac atggcagaag tcgtgcccac gtcagcagag tggcagaacc tctacagac 240
 cggctgccac ccctatgcca ggaccttccc atgtcccta ttcgccccag tctgctgga 300
 cacgttcac cagccctgcc gcagcatgag tgttgctgta agaaacagtt gtgctccagt 360
 tctggcatgt catgggcact cctggcccaa gagcttagac tgtgacaggt tccagctgg 420

ggaagacatg tgtctggaca ctctcagcaa agagtatcag tatgcctata aagaactgcc 480
 aaagccaagc tgccagggtc gccacttat tgaagaattc ttttcacaca agacactcga 540
 g 541

<210> 1937

<211> 411

<212> DNA

<213> Xenopus sp.

<400> 1937

gaattcccat agcaacaaac agtaattccc atagcaacaa acagtaggct ctgtagggtc 60
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 ctccgtgtgg caaccgggct tcgttccctt ctctttctgt ggctgctgag tttagtggga 180
 gcaaatgaag ggcaggcggc acaggacacc ccacaccggc ggttcgagta taaatacagc 240
 ttcaaaagtc cttacctagt gcagagcgat ggcactgttc ctttctggag ccactctggc 300
 aatgcaattc ctacgctga tcagattagg ataacgccat ctttaaaaag ccagaaagga 360
 tcggtatgga cgaaaacttt ggcaaaacttt cagaactggg aagtcctcga g 411

<210> 1938

<211> 353

<212> DNA

<213> Xenopus sp.

<400> 1938

gaattcccat agcaacaaac agtatgcacg tgcaagaggc cttatccgga tccagaagat 60
 gaggtccaag atgaaatgat ccagtgtata gtctgtgagg actggttcca tggaaggcac 120
 cttggcgagc ttccaccgga gcatatggac ttccaggaga tgatatgcca gatctgcatg 180
 gaccgatgtt cattttcttg ggcctatgct gcatatatag caattcctcc tgttacaaaa 240
 ataacatctg ctgagatgga tccctgaaagc aaggatatca aggttgatga tagtctggtt 300
 gaggggtattc taggagaaga tgggccaac attaaaactg ggaaaacctc gag 353

<210> 1939

<211> 295

<212> DNA

<213> Xenopus sp.

<400> 1939

gaattcccat agcaacaaac agtaagggca cacacctatt atgcaccact ccattcttca 60
 tcatcagcgg cttttcaatt ctctgaaga tgacctaca catggatttg acactctgag 120
 tctggagagt tctgatagtt tagacactag tgtttctaca ggaaactcgg catgttctcc 180
 tgataacatg tcaagtgcta gtggtttaga catgctgaag atagaagaga tggagagaat 240
 gcttctagaa gctcatgcag agagatccag gctttagga tccagtgagc tcgag 295

<210> 1940

<211> 361

<212> DNA

<213> Xenopus sp.

<400> 1940

gaattcccat agcaacaaac agtactccga atacactgcc atctttttat ccaccatact 60
 cactgcacca tccaagcttg cccaatgaca ttactatccc ctatttccc aatcagatgt 120
 ttccaaaccc cagcacagaa aaacccaaca gcactggtct aaacaacagg ttggggacca 180
 tattatcccc accacggcct gtgggatttt ctcaaacacc ctccctctc ctcccagaca 240
 tgccgccaat gcacatagcc aacccctccc atctgtccaa ctcaactta agtccctct 300
 tccctgaaat tgccacgact ctcccactg atggctctgc catgtcacc ctactctcga 360
 g 361

<210> 1941

<211> 287

<212> DNA

<213> Xenopus sp.

<400> 1941

gaattcccat agcaacaaac agtagtccac agtaggtcgg gtgctgtctg ggtgcaagca 60
 ccttttgcca gggcaagggg tgcagtgggt aaggcgacca gggggcagga ctctgtgtgg 120
 atacagcagt ttaattttca gtggcctggg aagagacca tcagaaaggc agttgcttca 180
 gcagtgcaca tcttttccact catcttcagt acgtaatgga cttgatgaat tctttgatga 240
 tcccaagaac tggggagaaa aatctgtaaa atctgggtcaa gctcgag 287

<210> 1942

<211> 349

<212> DNA

<213> Xenopus sp.

<400> 1942

gaattcccat agcaacaaac agtaaacaga catggcgaag catcatccag atctgatttt 60
 ttgcagaaaa caggccggtg tggccactgg aagactctgt gaaaaatgtg atggcaagtg 120
 tgtaatttgt gactcctatg tgcgtccatg cacccttctg cgtatatgtg atgaatgcaa 180
 ctacggttct taccaggggc gctgtgtgat ttgcggaggg ccaggggttt cagatgctta 240
 ttactgcaa gaatgcacca ttcaggagaa agatagagat ggttgccta aaattgtaa 300
 tttaggcagc tccaaaacag atctctttta cgaacggaag atgctcgag 349

<210> 1943

<211> 469

<212> DNA

<213> Xenopus sp.

<400> 1943

gaattcccat agcaacaaac agtagagggg ttcctcattc ctcatccagt aattcgaatt 60
 tgctgcggtt ctgctgcctt ccgaaagcat gttgcgctc gtcctcgctg ccctggtagt 120
 tgcagtaact tcagctgact tcaactgtatt gaagtcacca caaaatcaaa tattccaaga 180
 gggaaattgg cctgttcctg ctgacaggat tccagatata atctcgttgt caatgggatt 240
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 tcgtgtcaca gtctcctgta cagttactgg agtgaataag ctcccgttg ctgccaatgg 360
 actctcctat cctgtggaaa atgctgttcc atacagtgtt gacagtgttg taaattctgt 420
 tcattctgtg ttttctgaag aaatgccagt aattttgcag cagctcgag 469

<210> 1944

<211> 489

<212> DNA

<213> Xenopus sp.

<400> 1944

gaattcggac tactacaggt ggacaaaatg gcgaccagcg gctgcatgaa agtcaccaag 60
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 ggaatatgga tctcctgga caaaaccagc tttatttcaa tctgcagac ctctcttgg 180
 tactgagaa caggctccta cattctcctc gctgttgggg gtttaacaat ggtgatggga 240
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 ttcgtgctca ttatcctgat cgtcaagtt gcagccggaa tcttgattta cctacagcga 360
 gatgcactaa agtccgagat gtctccatc atccataaac tgattgtcac atatgactat 420
 gaagatggaa agaacacgag ctccgagacc acctgggatt atatccagag aaatctccat 480
 gtgctcgag 489

<210> 1945

<211> 281

<212> DNA

<213> Xenopus sp.

<400> 1945

gaattcggac tactacaggt gcaggtttag aagaggggtca tttacattta catattacag 60

ttcgttatct tatgaacaaa gtggattctg gttcctgaag actgaacttt cctatgagtg 120
 caacatttgt acttatattc cttctgatcc tttccctggt caggatccct gcagcgtctc 180
 tggtacactc ctctccctta tctctgtat ccttgatgga gaaaccagtt acaaggaggg 240
 acgtttcacc tctgaattct cattcattcc tgaacctcga g 281

<210> 1946

<211> 437

<212> DNA

<213> *Xenopus* sp.

<400> 1946

gaattcggac tactacaggt gacaatttgt aggggtgagg gggcctcaat ttgtgtgcat 60
 gattttcgat ttataaacca tttcattgtg taaaaccttc aaaatggcag aacgggcaat 120
 ctttctgtt tccgtttgca ttccgatgaa tgcaacaatt taactggtgg ccatgggttt 180
 ctaccaggt gcaaatttgc ccagtattga taaatgacct ccagtgtgtg tatgttgta 240
 cattttacaa atgtatgact ttttggcatt tgaaatcgat agagagattt tgcaatcttt 300
 aaggacaccc taatccccct cacctcctct ttttattaca ttatgtttgt ggaattagga 360
 ttttaaaaga taaaccttat gaccacccat cccatcttca cccaaagcca ttaggcaaat 420
 cacatccatc cctcgag 437

<210> 1947

<211> 270

<212> DNA

<213> *Xenopus* sp.

<400> 1947

gaattcggac tactacaggt gatgtagata agaaataggt gggacacatt ccaagatacc 60
 atcttgagag ggtcttttac atttcaaaga ggaactgttt gtacagttgt tgttggtaaa 120
 agggacatct aaagaaatta gctggttttc ctgtttaact tgtcatcagc caatcagagc 180
 cattctccat ttgggtcaat ggcctagaaa caatataaca atggagttgg ttttgggtg 240
 agagagagat tgggaaggag gagactcgag 270

<210> 1948

<211> 333

<212> DNA

<213> *Xenopus* sp.

<400> 1948

gaattcggac tactacaggt gttttagtgc cttgagggct gccctacaga gcattgattg 60
 gggcattagg ttttcagcta aaaacacaga acagaaatgg ttgtccttta aaatgatatt 120
 aaatcattac tgtttcaat ttattccctt aaggactaaa cgtagaagct ctaagaatca 180
 tctgtgtgg ctttaatacag aggtaaagat gttaatggga aagaagagaa aggcatttaa 240
 aaactacaaa tctgtagggg cagaagctgc atttaatgaa tataaacact gtaataaatg 300
 ttgtaaatca gcaatccgga aggccagctc gag 333

<210> 1949

<211> 284

<212> DNA

<213> *Xenopus* sp.

<400> 1949

gaattcggac tactacaggt gaggacttt agacatttaa tgtgagtata gtgagtaagt 60
 gtaagtetta aggtcattt atagctgaga gaggagtgtg agtcagggg gtgtatgact 120
 gtgcgtagtg aggggacatc acattcatta ccttgagtat ctggagaggg taactgactc 180
 ggcagcatca caaggatgtg gttcatctac gtcctcagct ggctgtccct gtttgttcag 240
 gtggcctttg tcactctggc cattgctgcc ggaccattct cgag 284

<210> 1950

<211> 536

<212> DNA

<213> *Xenopus* sp.

<400> 1950

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gaattcggga ctactacagg tgcgtcctct ccttctctgt gcctcctgtg tgggtgaggt 60
tcgctgtccg gggcctgcgc tacattgtgt aacctcccgc cctgttgcgc ccgcagcgaa 120
gtcctcccgc ctcaggcaag tgaaagccgc gtcccagatt gtcccgcagt gattatgcat 180
aaggagcacc tggcccagga tgagaatagt aatccccgcg aggcccccgg agccggaaga 240
aggacaaact gaggccagc gaggaggaca tgaaccacat taacaagagc aaagcgaaga 300
gcggtctcat ggaggctaag ggctttgggc cggacccaga gatcgagaca ttagccggcc 360
gtacagaaga cagtgtccct ctacagccct ccaactccct caactgcgt cactgagag 420
gctgcgagag agacccatcc gggcgcctac accaacgcta tccttccagc catcaccact 480
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<210> 1951

<211> 426

<212> DNA

<213> *Xenopus* sp.

<400> 1951

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gaattggact actacaggtg agcctggaga ccgcgatcag acatgtgttt tctacacctg 60
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aaacaagggg agccagtgat gatgtatgta aataaagtgg gccatatca caatccacaa 180
gagacttata actactacca acttccagta tgtgtccag agaagatccg cctcaagagc 240
ttaacactcg gagaagtgtt ggatggagat cgcatggcag agtccttcta ccgaattgca 300
ttccgacaaa atgcggaaag agaaactctt tgtgagatga aattatcaat cagccaagta 360
gaggagctgc gcacagctat cgaagaattg tattattttg agtttatgct agacgaccta 420
ctcgag 426

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<210> 1952

<211> 324

<212> DNA

<213> *Xenopus* sp.

<400> 1952

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gaattcggac tactacaggt ggcaaataat aagcatcgtc ttcttcttct ttttcgtcat 60
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aggaacaaag taattttcgt gcaataccca ccggaggctc cgtcccaat atctcatcaa 180
gacagagatc gtcataagg ttccgctcaa gtgctggaat ggtgttgcct cctggcagtg 240
ggtggccaac gatgacaact gtgggatatg tcgtatggca tttaatgggt gctgtccaga 300
atgtaaaatc ccaggaaact cgag 324

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<210> 1953

<211> 360

<212> DNA

<213> *Xenopus* sp.

<400> 1953

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gaattcggac tactacaggt gcagaaagtc aactctacta ccactggcat gtctgcaacc 60
actagttata catatggagt cagctctact accagcagtc cagtgaattt gcctgtttac 120
attactaaga aggaacccga ccggcctgtt gaatatagt agatctgtct ccatcacatc 180
tggaagtact gcaggcttgg gaacaaatgc agtgagatgc attatcattt gccctaccgc 240
tggcaggaga aactggacaa caagtggcaa gacgtacca gcatggatgc aatggagagg 300
gcattctgcc aaccgaagaa cgacagttac ttggggatca gttttgcaac agacctcgag 360

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<210> 1954

<211> 356

<212> DNA

<213> *Xenopus* sp.

<400> 1954

gaattcggac tactacaggt ggaggaccaa gaagtgtgga agtgttctag agctgcttta 60
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 aaggcagctt tctctttacc tcagagtcag tcggggaggg gcaccctgat aaaatctgtg 180
 accagatcag tgatgcagtc cttgatgctc acttgaaaca agaccagaa gccaaagtcg 240
 cgtgtgaaac tgtggccaag actggaatga ttcttcttgc tggtagagtc acctccaggg 300
 catctgtgga ttaccaaaaa attgtacgag acacaatcaa atacattgac ctcgag 356

<210> 1955

<211> 384

<212> DNA

<213> Xenopus sp.

<400> 1955

gaattcggac tactacaggt ggagggaggt tccttcatca gaatggatat tgtactgctc 60
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 actctacgct ttgtggtctt cggagactgg ggggggctgc cgcttcccc ctatactaca 180
 agacagcagg agctggtggc tgaagagatg ggcacaaact tggccaaact gggcgagac 240
 tttattctgt ctttgggtga caatttctac tacgacggcg tcaccgatgt gtcagacccc 300
 agatttaaga tcactttcga gtcgggtgtac agctccgagt ccttcatcaa acacccttgg 360
 tatatactgg cggggactct cgag 384

<210> 1956

<211> 333

<212> DNA

<213> Xenopus sp.

<400> 1956

gaattcggac tactacaggt gcaaagctcc caaagttaaa aaagctggag ctcatgaca 60
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 acctcagtg gaacaagata aaagagatca acaccctaga gcctcttaag aagctacctc 180
 atctcatgag cctggacctc ttttaactgt aggtgactat gctaaacaac tatagggaga 240
 gtgtgtttga gcttctcccc cagctcacct ttctagatgg ctttgatgca gatgaccagg 300
 aggtccaga ttctgaccca gaggcacctc gag 333

<210> 1957

<211> 297

<212> DNA

<213> Xenopus sp.

<400> 1957

gaattcggac tactacaggt gcgaaaacct ataattccag agcgtaaata ccagttacta 60
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 actgagaaag tacctgtggt gaaagctaaa gccacttcta tcatcatgaa ctctcttatg 180
 acaaagcata cacaggagag cattcaacgc ttcgaactgc aggtctggcct cagggatgct 240
 gggatatatgc cacacaaggg cctcactgct gaagagacca aataccatcc cctcgag 297

<210> 1958

<211> 256

<212> DNA

<213> Xenopus sp.

<400> 1958

gaattcggac tactacaggt gattcattgc aaaattgccc tcctctggat cctgggaaca 60
 tgaatatata cttaaagctat aataaatgca cattgtatca gtgtacaca atttgttggg 120
 ccctctaaaa gtacatttta ataataataa ttgtacactt gagaacaagc aaatttacac 180
 acacagttca aactttttaa gtgttcagaa ttgtttctg tgggttatct gattattata 240
 atatagagag ctcgag 256

<210> 1959

<211> 329

<212> DNA

<213> Xenopus sp.

<400> 1959

gaattcggac tactacaggt gttttaacag aaaagaaaga aggcgacgaa ggaggtggta 60
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 gctttgcaca agaaaatgag gaagcagaag atggagggga tgattctcag agtgatgaag 180
 agcaagaact aaatgggtca aatgaggaca gtggacatct ggtccacaat tttgtaatgg 240
 ataaacagga tactgaaatg aaagaaaagc atggaaatga aacacagggg atgctggaac 300
 tgggcaagga agaaagacag accctcgag 329

<210> 1960

<211> 396

<212> DNA

<213> Xenopus sp.

<400> 1960

gaattcggac tactacaggt gcttgattcc aaaatgacca agaagcgaag gaataacgga 60
 cgtgccaaaga agggcgcgg ccatgtccag cccatcgtt gcacaaactg tgctcgctgc 120
 gtcccaagg acaaggccat caagaaattt gtcacagga acattgtgga agctgcagct 180
 gtcagggata tctctgaagc cagtgtcttt gattcatatg cacttcccaa gctctatgtg 240
 aaacttcatt actgcgtcag ctgtgcaatc cacagcaagg tggtcagaaa ccgtccccgc 300
 gaagctcgta aggaccggac accacctccc aggttcaggc ctgcgggtgt acctcagaga 360
 gcacctccca agccaatgta agagacgtgg ctcgag 396

<210> 1961

<211> 528

<212> DNA

<213> Xenopus sp.

<400> 1961

gaattcggac tactacaggt gcaggaaggc tggtaaattg atttctctaa gtgagcaaaa 60
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 agccttcag tatgtcaagg ataatggagg catcgattct gaagactcgt acccatacac 180
 tgctaaggat gaccaggaat gtcactatga tccaaactac aattcagcaa acgacactgg 240
 ttttgttgac gttccatctg gaagcgaaga agatctcatg aaggcagtag cttcagtggtg 300
 accagtttct gttgcagttg atgcaggaca tcaatccttc cagttttatc agtctggaat 360
 ttattatgat cctgaatgca gcagtgaaga cctggatcat ggtgtacttg ttgtgggtta 420
 cggctttgaa ggtgaagatg tggatgggaa gagatactgg atcgtaaga acagctggag 480
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<210> 1962

<211> 269

<212> DNA

<213> Xenopus sp.

<400> 1962

gaattcggac tactacaggt gataaatggg gttacagatg gtatttgac tgcaaccacc 60
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 ttcacgtttg tggaaaaaaa tgttggtacc tggaaatcta atacctttta ctcaggggaa 180
 aaattacctc cttcgatgtg gtaatgacct ctaagaaga ctatcaaaat ctcagaacac 240
 ggttttctgc ggaaggattc tgtctcgag 269

<210> 1963

<211> 267

<212> DNA

<213> Xenopus sp.

<400> 1963

gaattcggac tactacaggt gtggaaattg ggtgacttga gcattgagct gaatagtggc 60
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gctccttcac acaagcacta tggagatggc cagtctaata atgggtgctgg aatgagcagt 180
 ggagaggaac ttcagctgac aaccacaatc acccatatcg atggacctac tgagttgtat 240
 cggctggctg gcagggaggc actcgag 267

<210> 1964

<211> 309

<212> DNA

<213> Xenopus sp.

<400> 1964

gaattcggac tactacaggt ggaccggaga gggcgacgg agatatgaat aaccaaggcg 60
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 tgcgcagtta cttttctcag tatggagaag ttgtagactg cgtataaatg aaagataaaa 180
 caacaaatca gtcaagaggc tttggctttg tcaaatttaa tgatcccaat tgtgtaggaa 240
 ctgtcctagc cagcagaccg catacactgg atggccggaa tattgatcca aagccatgta 300
 cccctcgag 309

<210> 1965

<211> 323

<212> DNA

<213> Xenopus sp.

<400> 1965

gaattcggac tactacaggt gctttggagg tcaaggaaagg acatctgtgg tgcctgcttt 60
 attctgcatt taattaaagc tttctagctg aatgtgctta atgaactcgg tgccacttgt 120
 acagacacct aagcagtgcc tctaatgctc tattttaaac cttaaaggcaa cttacacata 180
 gttaatgctt. taaagcagga gtccccaac gccaggccgc ggacactcct gccctgggtc 240
 gccgagccca gtgtcctaaa acgaggcacg ccaaatttta tgccagcgcg tccaaatttg 300
 ctgccaaccc ctccgacctc gag 323

<210> 1966

<211> 535

<212> DNA

<213> Xenopus sp.

<400> 1966

gaattcggac tactacaggt gaagcttgcc agctatggct ttgttttagcc atttccatgt 60
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 tgagttcagc ctttccctgg ctgcgcaggt gactacctgt gaggcaaatg gcagtgtcta 180
 ctatgttggt gagtgggtact tccctggactc ggaccactgc actcaatgtg agtgcaccac 240
 agaggggccca gcctgtgcta ggacagagtg cacagccttg ccaccagcct gcatgcgcgt 300
 cagccactac cctacggact gttgccctcg ctgtgagaag attggctgtg aatacagagg 360
 agaagtttat gagctgggag aacaatttca gccctcagaa tgtgaacagt gtacatgtga 420
 cgtagacgga attgcccgt gcctggtagc agactgtgcc cctcctccat gcgttaaccc 480
 ggtgtatgag aaggagaggt gctgcccgcg atgtaaagat ggtccaaacc tcgag 535

<210> 1967

<211> 281

<212> DNA

<213> Xenopus sp.

<400> 1967

gaattcggac tactacaggt ggctaatagc ccaggaccac cttccctata ctaggaaaaa 60
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 gcgcactgt ccagaaaatg aggacaagaa agaacaaaat tctcctagtt cttataaagt 180
 tgttctctgac cggcctcatg cacataaccc aaaccggggg aaattctacc gtagtacgga 240
 gggccccccg ggaacctacc atttcatacc aaaccctcga g 281

<210> 1968

<211> 308

<212> DNA

<213> Xenopus sp.

<400> 1968

gaattcggac tactacaggt gaaggagtag gagggaaagt gaaaggaaat taacacgcag 60
tgattcctcg ttatcaaaga tgtcacggca ggattctagg caagatggca agaaaggctc 120
caccaaagaa agtaataaac gctctacatc tagtggagg agcagttcag aatcgctgt 180
cctctacaag gataaaaagg ctaagaaatc aaaacgcagc agatcacatt ctgtggagaa 240
atcgcaagg tctggttaaga aggcaagccg caaacacaag tctaagacc gatcaagatc 300
gtctcgag 308

<210> 1969

<211> 349

<212> DNA

<213> Xenopus sp.

<400> 1969

gaattcggac tactacaggt gcatgaagtt actgtttgct gctgcgctta tcgcgggctc 60
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gggtaccgat aaggtatact ttgatttaaa gatcggtgat gaggaagtag gaggtatagt 180
aatcggtctt ttgggaaaaa ctgttcccaa gacagttgaa aactttgtaa ccttggcaac 240
cggagagaaa ggatatggtt acaaaaggcag caagttccac cgtgtgatca aagaatttat 300
gatccaagga ggagatttct ctcgtggaga tggactgaa ggactcgag 349

<210> 1970

<211> 319

<212> DNA

<213> Xenopus sp.

<400> 1970

gaattcggac tactacaggt gaaatacatt tgtgccattt tgtttgcttt gtaaattgta 60
attttatatt gtatttcctt cctgggattg tgtgtcaggg ttgcttttct gatccagtgt 120
aattaacatt caactgtaaa ttttcaatcc attgatgctc cgcttcaggg ctctctttt 180
tacatgtccc tgcgggatgt ttttagagtg gcggcattca ctggcttga tttcccatg 240
agaacacgta caatatctta ggtgtaacct ttttaactct tgttttgttt tctggggagg 300
gaatggggga actctcgag 319

<210> 1971

<211> 302

<212> DNA

<213> Xenopus sp.

<400> 1971

gaattcggac tactacaggt gtggggctct tccgtggagt tatggctgtc aaagtgttca 60
gttcattgga ttttaagtt actcagaatc gatctgtaca gagacagcga gaaaatatac 120
acatgcagct aaaggaaatg ctcaagtgaag gactacaaag tgaccgtcca actctcttaa 180
agaagcaact gaagggtcct ttcattctca tgcctctctg ggcattgtgt ttagggagct 240
ggcttggggc tgcagtagtt gtatatctgc tgtcagaaca tctacaccaa gttgggctcg 300
ag 302

<210> 1972

<211> 438

<212> DNA

<213> Xenopus sp.

<400> 1972

gaattcggac tactacaggt gaacccctga aaaactcttt gaaagtctca tctctccggt 60
tacaagcgat gcatttttcc gtgactactg ggaacacaaa gtctgtcttc tccagggag 120
ggatcccgcg ttaccgatt acttccagac ccttttccga ctgtcagacc taaagcacat 180
cgccgggggt gggatttact acgaaaggga cgtcaatgta ttcaaatgca gagacggcaa 240

gaaaatagcg ttgccaaagac acgggaaagc cacttacctg catctccca aagactttgg 300
 cagcgggaag gccgctattc agttccatca gcccagagg tttaatgatg ccttggtgca 360
 catcatggag aagttggagt gcttctttgg tgccttggtt ggaagtaacg tttacatcac 420
 tccccgggac tctctgag 438

<210> 1973

<211> 255

<212> DNA

<213> Xenopus sp.

<400> 1973

gaattcggac tactacaggt gataatctgt gtgtgcaaca gcgctgttat agtatctgtt 60
 gctgtaccgg taattacgggt tatcattcga agagccacta gatcctcctg agctagacac 120
 cgaactgggt gtacttggtg agtgactatg gtcctattga gggcttgtag aattactatt 180
 acttgatttt gtcccttcat cagttgtttt cttgaagaag ttgtgctgga gggcatagaa 240
 aggggtggac tcgag 255

<210> 1974

<211> 410

<212> DNA

<213> Xenopus sp.

<400> 1974

gaattcggac tactacaggt ggggctttct tcaagggtgc ctggtccaat gttctccgaa 60
 gaatgggtgg cgcctttggt ctggtgttgt atgatgagct gaagaaagtc atgtaaaactt 120
 atctttcttg agatgtctgt gaccaggcat gctgtattct gtaacctacc ctggacattt 180
 atggacattc taattttttt ttttttgtea aacacactta tttataaaat atatactggt 240
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 aataaatcat tccctttaag tctcttgctg cttttaagag cctgcaactg tgcttccttg 360
 caagggtttg gccctttggc agtgacagac tgattcaatg gagactcgag 410

<210> 1975

<211> 320

<212> DNA

<213> Xenopus sp.

<400> 1975

gaattcggac tactacaggt gaatacatct gtgccatcag agcctagcag tcttcagagc 60
 agtacacgta caagtgcgtc agcttctcct gacgatatac ttgaacgagt tgcctgcagat 120
 gttaaagaat atgagagaga gaatatcgac acatttgaag cctctgtgaa agccaaatat 180
 aatctcatga ctgaacagaa taatgggtgc atgcagaaga aattattagc accagacatg 240
 ttcacagaat ctgatgacat gtttcagca tactttgata gtgctcgttt taaggctgct 300
 ggaattggaa aagactcgag 320

<210> 1976

<211> 455

<212> DNA

<213> Xenopus sp.

<400> 1976

gaattcggac tactacaggt gagatgagct aatggatttt ggctatcctc aaaccacaga 60
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 cgtccacct gccacagtaa caaatgctgt atcgtggaga tcagaaggca ttaaatatag 180
 gaagaatgaa gttttcctgg atgtcataga atctgtgaat cttttgtga gtgc aaatgg 240
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 gccgaactt cgtcttgat taaatgataa agttctattt gacaatactg ggcgtggaaa 360
 gagcaaatct gtggaactgg aagatgtcaa gtttcaccaa tgtgtacgcc tgtcaagatt 420
 cgaaaaatgac aggacaattt ccttcattcc tcgag 455

<210> 1977

<211> 299
 <212> DNA
 <213> Xenopus sp.

<400> 1977
 gaattcggac tactacaggt gaaaagtaca taagcaagtc gcttattgga tttgcttttc 60
 cagttatgtt aagtattact gatgtgtaca ttgttcttaa tgcatgttaa aacatgcttc 120
 ccttttgtaa aatatatggg ctttatttgg actctactgt tctacttttt aagatgtttg 180
 tgtgtttttt tgtttttttt ctttgagtaa acataaagcc tgatttttgt attacttttt 240
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<210> 1978
 <211> 435
 <212> DNA
 <213> Xenopus sp.

<400> 1978
 gaattcggac tactacaggt ggaagctcag aaatagtaca cggatatccg gagcggctct 60
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 gatgaagatg gggacgagag tatccacaaa ctgaaagaaa aggccaaagaa aaggaagggc 180
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 gagcaggatg gagacgagcc ggggccccag agatctgttg aaggctggat cctgtttgtg 300
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 ctagtggacc tcgag 435

<210> 1979
 <211> 478
 <212> DNA
 <213> Xenopus sp.

<400> 1979
 gaattcggac tactacaggt gcgccgagag gccgtttata aaatgcagct tttgtctga 60
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 cgaggccaaa ctccaaaggt ggccaagcaa gagaagaaga aaaagaagac tggccggggc 360
 aagagacgca tgcagataaa cagacgcttc gtcaatgtcg taccacctc tggcaagaag 420
 aagggaccta atgccaactc ttaaatgata agagtccaat aaacaactga aactcgag 478

<210> 1980
 <211> 346
 <212> DNA
 <213> Xenopus sp.

<400> 1980
 gaattcggac tactacaggt gaacagaggc gccatctgtt ctgcagataa ggacagtgtg 60
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 actctctgta catgggggta tgacttcaca gagatctttg cccattaac cagatttaac 180
 ccaacacttt gcgccaaatc ctacgcgagg gagaaaacca atctccttgc ttattaceta 240
 cctttgcctc cttatttaga tgagccgctg agaatgtaaa ataacattta tacataatat 300
 tgatatatac tatggcccat ggtgttacat tgaccaacc ctcgag 346

<210> 1981
 <211> 310
 <212> DNA
 <213> Xenopus sp.

<400> 1981

gaattcggac tactacaggt gtgataacgg cgcagctctc cactcaattt cagatactgc 60
 taatggaatc tgtcttctcc aattgtatta tgagaagccc taatttgcta tggagcttgg 120
 agctgtcatc agttggggat tgtggggta catgggagct gccaggtttt tgccttgag 180
 tttgtatctt tcactttcaa tagcacagcc cctgcctgc cagttagctg ataggccgcc 240
 atgggggttta tgcacttca tacaatagga ccgggctgca caggctgact ttctaattgt 300
 caagctcgag 310

<210> 1982

<211> 341

<212> DNA

<213> Xenopus sp.

<400> 1982

gaattcggac tactacaggt gcaaagagaa cgcagcggc agaggcagag agagcgagag 60
 atcagagaaa tggagagaca aagggaaacga gaccgcagag cccgtgaacg tgttcttatg 120
 atacyagaaa gagaagaacg ggagagactg cgaagggagc gcgccaggct tgagtttgaa 180
 agagaccgtc ttgatcgaga acgtatggag cgcgagagac tagaaagaga gcgaatgcgt 240
 atagaagaag agcggcgaat agagcaggag cgcattcaca gggaaaggga ggagcttcgt 300
 cgtcagcaag accgattacg ctatgaacag gatgcctcga g 341

<210> 1983

<211> 301

<212> DNA

<213> Xenopus sp.

<400> 1983

gaattcggac tactacaggt gcgcgctccc gcggagttag gcaatagggt ttgctggaga 60
 gaggcattga gatttagatt tcttgccggc gctttaggga ttcatttggt tcccagtggt 120
 aactaacatg agactccccg ggaataagtg gctgggggca gcgctccttc tegtgtac 180
 ggtctcgtgt agagtgcgga gcgacgaacc cactggacce ccataactt caacagaaaa 240
 aacaataaca agtgctcccc tgcaaccgac cgcaggcagc aatataacag acatcctcga 300
 g 301

<210> 1984

<211> 304

<212> DNA

<213> Xenopus sp.

<400> 1984

gaattcggac tactacaggt gattgtatgt ccagcttcca actcgtgcct cagaggaaat 60
 acactgacaa cttcaaaact tgttgaaatt caagatggaa ttctggaaca agtattcctg 120
 gacaaacctg ttggtgcggg ctctgatttt cgtgactgtt gatcgattc agtctgacga 180
 ctcaatgtgt ccacaggaca tggatatacg ctgcaagcgg atttgcata gtaactgtga 240
 caatctaaac agcaccagtg aaggctgcat tgagatatgt aagctgggat gcgaccgact 300
 cgag 304

<210> 1985

<211> 474

<212> DNA

<213> Xenopus sp.

<400> 1985

gaattcggac tactacaggt ggtggataac tgtgtgttca aacgtgggtga caaggagacc 60
 acatgtacag atctggaggg attctgggat atgatctatt ttcagataga agatgtaaaa 120
 gcaaagttt ttaactcttg caagctggag gagaattctt ggcaacaaaa cacagcccca 180
 accaaaaaaa tcataaagaa aaagattgcc cctgctgcaa catcaaagtc aagccaaggg 240
 gataatggca gggctgctgc tctgtatgc ctcgtgcta ttaaagctgc cttgaaaaac 300
 aaaggaaagc agggaggacc caatgtagag gccccagcac tgcctacca agttgaagaa 360
 gttgtgttcg atgcagggtt ttttcgagtc gcaagccctg ccaaagttgc taacagtttt 420
 agggcaaaat gcagttcttc ttggtcatcc cctactcccc agccccact cgag 474

<210> 1986

<211> 347

<212> DNA

<213> Xenopus sp.

<400> 1986

gaattcggac tactacaggt gaaagacacc attagaaaag ccctggaaaa ctccaacgtt 60
 gtcattaacc taatcggaaa agagtgggaa acaagaatt ttagttatga agatgttttt 120
 gtgaatattc cgagagatct tgcactgcta gcacgggagg ctggagtaga gaaattcatc 180
 cacatgtccc atcttaacgc tgacctgaaa agcccatcaa agtatctgag gaataaggct 240
 gttggagagg ccgctgtaag ggaggcttcc ccagacgcaa tcatcatgaa gccttcagaa 300
 atgtacggca ggggaagacag attcttcaac cattatgcaa actcgag 347

<210> 1987

<211> 275

<212> DNA

<213> Xenopus sp.

<400> 1987

gaattcggac tactacaggt gaaaaaaaaa ctgcagcact cttacaagtt tctgtgctgc 60
 atattgetaa taatgggtgc aacaacctcc tggatattaa tcctacaata tattttgttt 120
 tgaacttcac ggggtgcaga aacctgctta tgcattccaa cctactgcag gtagggaaga 180
 gtgcaaagtg cgtttgtttt acctagattt ctgaaatgtg ataatctcgg aatgtttttt 240
 atttcacttt tattttatga ctgtgtaagc tcgag 275

<210> 1988

<211> 489

<212> DNA

<213> Xenopus sp.

<220>

<221> unsure

<222> (17)

<220>

<221> unsure

<222> (22)

<220>

<221> unsure

<222> (25)

<220>

<221> unsure

<222> (61) .. (62)

<400> 1988

gaattcggac tacgacnggt gnaanaactc atacaggtga gaagccattc aagtgtgagt 60
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 acacgtcaga taagccatat atctgcaaag tgtgtgataa atcctacact caccacagct 180
 ccctaagaaa gcacatgaag gttcatgaat cacaaggggtc tgattcttcc cctgccgcca 240
 gctcagggtg cgaatctgct accccaccag caatgggttc tgccaacagt gtggaacctt 300
 ccaaaaaattc atcagcaaca catcagacta acaacaattc tcataacaca ggactacttc 360
 cacctaattt taacgaatgg tatgtctgag caaatgtag agaggcctag tcatgctcaa 420
 caaagggacc atgtgcaaaa aaacagaatc caattttttt tatgttgaac caaggcgga 480
 atgctcgag 489

<210> 1989

<211> 507

<212> DNA

<213> *Xenopus* sp.

<400> 1989

gaattcggac tactacaggt ggggtacatg gcttctctcc gactgtctgt gctgctcgtg 60
 tccgtctcat ggctgctgct gctgggtgtct ggggtccgcg ccgggcctcg cactcttctc 120
 ttaatggaga acatcgacct gcgggagacg cactctctct tcttccgcag tctatcggac 180
 agaggatttg acttgtcctt caaaacagct gatgatccga gcttgtccct tatcaagtac 240
 ggggagttct tgtacgacaa tctaaccate ttttccccct tegtgaaga ttccgggggg 300
 aacataaaca ttgagaccat cagctcattc atcgatgggt gcggaagtgt gctgggtgca 360
 gcaagctctg atattgggga cctctcccg gagctgggca gcgaatgtgg cattgagttt 420
 gatgaagaga aaacagctgt aattgatcat cataactacy atatctccga cccgggccag 480
 cacacactta ttagggccga cctcgag 507

<210> 1990

<211> 294

<212> DNA

<213> *Xenopus* sp.

<400> 1990

gaattcggac tactacaggt gtccagttc agtgaaccct cagttaaata tacttgatgt 60
 tagttaatga taatggaaag gttatgtcat tataaaaaaa tgaatcaagt ctagagatgg 120
 ttttcagctt gtgaacaaac aaaagggcat caaccaaagg ggaacaaatt aaatactctg 180
 gcactattag cagtgtgttt gtcccttaac agccatttcc tttgcattgg ttctggatct 240
 cgtagatctt tctttttttt tttaaagtta ttgtatgca ctgtgtaact cgag 294

<210> 1991

<211> 279

<212> DNA

<213> *Xenopus* sp.

<400> 1991

gaattcggac tactacaggt gaaagacatg aacaatgttg ggtagtaaag cagtagaaag 60
 tcagcaaagc tactaaatgg ctgtgtgaat gttctggttt agaatggtgc taaacttccc 120
 actgaatcca taactattgc catcttaagc agttattctg tgggtgtgctt aaaccttatt 180
 gttaaacttt ttgtttttta attgaatacc ttgcaagtag aatttgtggc atgagtaate 240
 agtctttgct gaaccacaac ttcttgacca gtgctcgag 279

<210> 1992

<211> 302

<212> DNA

<213> *Xenopus* sp.

<400> 1992

gaattcggac tactacaggt ggagaaacat agccactgtg acctgttcat atgtacatca 60
 ttgtacaatt tttttagtgg atgcaattta ttttgtgtga ttgtacatta ctgaactgga 120
 atgtaactgt tctcagaagg gttcattttt gagaattgaa tgtctggctg gaaatttctg 180
 atcccatacc aaaactgggt ttgtaagcca tatattacat gtgaaacata cattgagtta 240
 attgcaatag gcttaaaaag gaagtagcat attccagcca tcataccagc agcccgctcg 300
 ag 302

<210> 1993

<211> 554

<212> DNA

<213> *Xenopus* sp.

<400> 1993

gaattcggac tactacaggt gggccacagc aatatttctg ccgttctatc agaagttcct 60
 gttggcatgt ggtacctgaa gagagccgtg cgctgtatcc atcggcagct tcttgtgtga 120
 atttcttctg tacaacgga cgagctctga gaaacggata aagctccatt gcgcacgtac 180
 ttattcagtg tgcctgcca gtatatacct tggagtgtat ttattgttgc atatcgttcg 240

taagtcttgc acatattttc atgtttttct catgaaatat ttttaagaaag gtgtggccag 300
 cataatctct tgttttacat ttgtattgct ccttgtttat aaatgtacat gtcacgcaac 360
 gtaatgttct ttatttacag gctgctgtat acgcaacttc aaattgatct cttttgagca 420
 acggcagtggt aaataaagca cagtattagc ggaaaaccaa tagttagttg cctttgtaca 480
 gagcttcccc tgcagtcatt ttaaatcacc atataatgct gatgtacagc ctagctagag 540
 cccagtcact cgag 554

<210> 1994

<211> 279

<212> DNA

<213> Xenopus sp.

<400> 1994

gaattcggac tactacaggt ggtaaagatc cagggcattc gagttaaaga cgagagccca 60
 ggaatcaggg attttgaagc aagtttcacc agactaatgg ataaaaaac aaacggcaca 120
 aggatcgaga tcaacgaac tggtacctct ctgtactatc agccggggct tctctctgga 180
 ggaaccttgg agcatgactg caatatactg cgctctatcg gctattattt agaaagtctc 240
 ttttgcttag ctctttttat gaagcaccgg catctcgag 279

<210> 1995

<211> 298

<212> DNA

<213> Xenopus sp.

<400> 1995

gaattcggac tactacaggt gcaaaatgga aacatgtttt agcagttgag attaatgttt 60
 gtacagatcc ctttaagacc tcttacacat gcagagtgac atatgctagt gtgagcctga 120
 aacattcttg ctataggctt ctgtactgtt ccgttcaagc taacttgatt tataaacctc 180
 tgcttggtcc ttgtcctgag gaatatcttc attttcagtt gaagtgaact tgtatcaaât 240
 ctaagaattg gcattttggc taccaggtc tcttggtat aaataaaggc ccctcgag 298

<210> 1996

<211> 325

<212> DNA

<213> Xenopus sp.

<400> 1996

gaattcggac tactacaggt gcagaaccgc aaaagaaatt gatcaagaag cccaggtcag 60
 ccttagtgat ctaagggacc cacaacatga ccttgacagg gtgaagaagc cagagtgggt 120
 cattttgatt ggtgtgtgca ctacaccttg ttgtgtgccc attgccaatg ctggtgaatt 180
 tgggtggtat tattgccctt gtcattgggt ccattatgat gcattctgga gaattcgcaa 240
 gggtcctgct ccattgaatc ttgaagttcc agaatacgag tttccttctg aagatttagt 300
 aattgtcga taggtacgac tcgag 325

<210> 1997

<211> 439

<212> DNA

<213> Xenopus sp.

<400> 1997

gaattcggac tactacaggt ggtttagtggt tatcatcagt tgtgatttgt gtttagtcag 60
 gttatctatt acaagtacca cttagcgatg ctgaaattcc gggagaacta attgctccga 120
 taatacgttc catctaattc atctcgggt atgtgcgcta aaacaaattt taattttgaa 180
 gtggacctgt cggccagaca cggaaagctg tgtgatggag gtccttttca ggttgaacat 240
 gtccaaaaat cgggattcta tcttttgta aagcatctat ggctgtaggc tcgtttgggg 300
 atctcagctg tcaatcagat gtggtctgcc cctcctcggg gcttagggc ggcatggagg 360
 cgggacagag ggttctatc gcttccatt cggcgcttcc tgggtgtcgc tgcctctcgc 420
 acgttccctt attctcgag 439

<210> 1998

<211> 409

<212> DNA

<213> Xenopus sp.

<400> 1998

gaattcggac tactacaggt gggctaccct atcacccttt atctggaaaa ggagcgggaa 60
aaggagatca gtgatgatga ggcagaggag gagaaagaag aaaagaagga agagggaagga 120
gagaacgaca aacctaaaat agaggatgtg ggctctgatg aggaagagga agggaaagat 180
aagaagaaaa agaccaagaa gatcaaggaa aagtacattg atcaggagga gctgaacaaa 240
accaagcccg tctggaccgg caaccctgat gatattacac aggaagagta tggagagtgc 300
tacaagagtc tgaccaatga ctgggaggat cacctggctg taaagcattt ctctgtggaa 360
gggcagctgg agttccgtgc tctgctatcc atccccggcc ccgctcgag 409

<210> 1999

<211> 364

<212> DNA

<213> Xenopus sp.

<400> 1999

gaattcggac tactacaggt gcaaattact tacaatgtag gtggtttgta gttcagttga 60
agttaaaattg gtattgtcga actacaaact actttcacac tatatagaag ttgcttagaa 120
ttagctatcc tataactcac ttaaaattac cttaaagggt aatcaccact ttaagccacg 180
tgtctcataa gaagaaatga tcctacaaat aactttaag gctgaatttg gtaaatattt 240
ggatgcagag gttaaaggagg ggattattac tggagaaacc agtgattagt ttgagtgcga 300
agaacaaata ttctgtatat atactttccc ccaaaacaaca tgctccacc tgtagtagtc 360
cgaa 364

<210> 2000

<211> 308

<212> DNA

<213> Xenopus sp.

<400> 2000

gaattcggac tactacaggt ggagccatgg gtccttggag gtatctgttt gggctgtgct 60
ggttctcgca ggttcatttt gcccgatcgg ctgttccctt gcttgcaaac tccgatttct 120
ttagcctcaa tccactcag actacgatta cgttggaaac gccgttctgc atgtttaaag 180
atgccattga cgtttatctc ttgtccattg tgaagggtgc cacaagcacc caagttgctg 240
atgccgcaa gaaggttatt gcctctaact aactggaac ccaggagggc ctactgggac 300
ttctcgag 308

<210> 2001

<211> 304

<212> DNA

<213> Xenopus sp.

<400> 2001

gaattcggac tactacaggt ggttggttat cctgagagtg tgaggtacgg gaataagaga 60
gaggaaggtc atgccacca tggggaagaa acagaatggc aagagcaaga aggtggagga 120
agccgagcct gaagaatttg ttgtagaaaa agttatggac aggcgtgtag taaatggaaa 180
ggttgaatat tacctcaaat ggaagggttt tacagattca gacaacacct gggagcctga 240
ggaaaactta gactgtccag agttgattga agcattcctt aattctcagg aggcagggt 300
cgag 304

<210> 2002

<211> 372

<212> DNA

<213> Xenopus sp.

<400> 2002

gaattcggga ctactacagg tggtaaatat ggagactctc ggtggagcgg agggagggga 60

gaccccaaca gaagagcccg acaatgtaga actaagaaga cgccgacttc agaaactgga 120
 aacaacagat tctcaataaa agacttaacc ctccctcgaca ttcccaaagt ctcgtctctg 180
 acactgaacg accagggaac ttctgctttc tgaaaagcta cgttttgctt tgcgcggact 240
 cagcagccat ctttgccaaa ctttgatagc aacttcgtta aatatatata ttttttacga 300
 ctacacaagg gttcttatgg cagatgctca gtgatgaaag gactactggc ctcaatatcg 360
 gggggactcg ag 372

<210> 2003

<211> 287

<212> DNA

<213> Xenopus sp.

<400> 2003

gaattcggac tactacaggt ggtggattta cctgaggaaa acagagaggc tgcatacaat 60
 gccattactc tgcttgagga attccatgac ttgtatcagc cgctacctga tctggatgac 120
 attgatgtgg ctcagcagtt tagcttgaac caaagtcgag ttgaggagat tacaatgagg 180
 gaagaagtta gcaacattaa tatcctgcaa gataatgatt ttgttgactt tggcatggac 240
 gaccaagaga tgatgcgaga aggcagcgct tatgaagatg actcgag 287

<210> 2004

<211> 414

<212> DNA

<213> Xenopus sp.

<400> 2004

gaattcggac tactacaggt ggccatgcag catctttgta gttcatctt tttcttgcac 60
 cttcttcgag gttctgccag ccaaaccatt gaggcagact gcaatgacca caatatattt 120
 tacgcagtag ataaggcact gagacaccac aacaaggcgt taatagatgg aaaccagttt 180
 gttctctata ggatcacaga tgccaagata aagactgata atagcgatgg gatacataac 240
 tttgtcagct atgatatacg agaaggttcc tgtggagtaa aaagtggaac attgtggcag 300
 aattgtgatt ttaagcaatc tgatgaaaaa gtgggtaagt gttcggcaca cgttgtagtc 360
 aacaagagt tcaagaccag tgaagtcac tctcagaact gtagcacact cgag 414

<210> 2005

<211> 280

<212> DNA

<213> Xenopus sp.

<400> 2005

gaattcggac tactacaggt gatcatcaga gatcaaaaga cagggatcgg caaaggattc 60
 ggctacgttt tatttgagag tgcaagcgc gtccaactag cgctgaagct gaacaactct 120
 cagctctcgg gaagaaggat ccgggttaag cgcagcgta cggcagagc cgcccaaaaa 180
 agtacaaaca aaacaagttt taagcagaag ttggacacat taaatcaaac aaaaccgatt 240
 aaggccaaca gttttgtcgg cgaaacagcg gagcctcgag 280

<210> 2006

<211> 319

<212> DNA

<213> Xenopus sp.

<400> 2006

gaattcggac tactacaggt gcatgaggat tctgagctta ttgcattttt ctgggaacct 60
 accaaacacc cccattgccg gtgttctgag tacgctaggt cttagcttct ggtgtccacc 120
 cctactttca ccaacatat catctacaag aagctgcttc tgtgccatgg cagaaatgca 180
 agatagtcac aatgaaatgg ggctgtacac cccaaatcct gaagtacgtg ggatgacttg 240
 tctaaatcgg gatgctttca ataaaacat acacgttcct gtaattaaag taaagaaaga 300
 aataatcaat agactcgag 319

<210> 2007

<211> 315

<212> DNA

<213> Xenopus sp.

<400> 2007

gaattcggac tactacaggt gcaagcttta cagtaagaca tcccatggta ccatatacct 60
 ttataaggct tgacattgca tgaaatattt agcttgaaac aaatgtgaaa aataaactaa 120
 cagtaaaata attagcttac atgaatacaa agttaaaaca aaatatgtat tagttcaaag 180
 attcagcaag gcatcataaa tgaataaaac aactttgttc tacagtgtct agagattgct 240
 gcttagccaa tatctagatg atatgtacct gtgcaaatcc ttaacagtgc agaaaaacac 300
 ctgtagtagt ccgaa 315

<210> 2008

<211> 332

<212> DNA

<213> Xenopus sp.

<400> 2008

gaattcggac tactacaggt gtacaaacct tccaggttat tctgcaacag ttttactaat 60
 ttttctgagg tggccatagt acattttgtga ttcgctatgg ggtttgatgt actgttgggt 120
 ggggtgcatc acaaccggg gtggcacact gcacatatga taaatacttg tcttatatta 180
 ataggcctgg ccttgcccac taatatggaa aaacccatt ataagatggc tgtgtggcta 240
 ctggctgtga taagcagcat agcaactctt taccatataa caaaaaaagt tagcttgagt 300
 gtgatctcta cttgccaacg tgtgtctctg ag 332

<210> 2009

<211> 274

<212> DNA

<213> Xenopus sp.

<400> 2009

gaattcggac tactacaggt gagccaatga actgggaatg cttctttaca gtttctctga 60
 cacgtttctc ttccaggtag tcagttctgat cttccttcag atgcaggatg actttgttac 120
 cacggccaat gggctcacca gtatcaacct tcacagtga ggagccacca gcagaggatt 180
 cccaagcata ttgtcatca tcatttgttt tggtaatgac cacaaccttc tctgccacca 240
 ggtatgcaga atagaaacc acaccgacct cgag 274

<210> 2010

<211> 326

<212> DNA

<213> Xenopus sp.

<400> 2010

gaattcggac tactacaggt gcattgatta gatcactgca gcataactgt ataaatatct 60
 atagactaag gtgcatttct agatgctgga aaaactgcag cacaggatgg gccaaatgtg 120
 tactggaagt tttggttgca gaagttaaa ggtaaggaga agttggcagt gatggacccg 180
 attatgggat ggtctttgta agcctctgtc gtaaaggggt tatttgcctt tgggttgact 240
 tttagtatga tgtagagcag tgatccccag ccagtggctc atgaacaact tgttactccc 300
 agtggcctca aagcagatga ctcgag 326

<210> 2011

<211> 265

<212> DNA

<213> Xenopus sp.

<400> 2011

gaattcggac tactacaggt gcaacatcaa gccagcttgg attgataata gtcacaattg 60
 gactaaatct tccccacta gccttcttcc acatttgcac tcattgcattc tttaaagcta 120
 tattatttct ttgttcaggt tctattatcc atagccttaa tgatgaacaa gatattcgaa 180
 aaataggagg cctacaaaat tctttacaa tcaactacac ttgcttaaca attggcagcc 240
 tagccttaac cgggacaagc tcgag 265

<210> 2012

<211> 335

<212> DNA

<213> Xenopus sp.

<400> 2012

gaattcggac tactacaggt gagaagatag aaaagaggcg gcagatcccg ttccacatgc 60
acatcaacct ggagctgctg gaggcgctct atctggtgtc ggccatgttg ctggagattc 120
catacatggc tgcacatgag ttcatgacca ggagaaggat gattagcaaa cagttccacc 180
accagctccg tgtgggagag aggcaaccac ttctagggcc ccggagagc atgagggaac 240
atgtatgcgc tgcttccaaa gcaatgaaga tgggagactg gaagacctgc aagaacttca 300
tcataacga gaagatgaac gggaaaggct tcgag 335

<210> 2013

<211> 281

<212> DNA

<213> Xenopus sp.

<400> 2013

gaattcggac tactacaggt gcaaatcaat gcatggttgc taggggaatt tggaccctag 60
ttaccagatc acttaagatg caaattgaag agctgctgaa taaaagcta aataactcaa 120
aaaccacaaa taataaaaaa tgaaaaccaa ttgcaaatg tctcagaata tcacctcta 180
cattgtacta aaggatgaac accactttaa taaatagcag tgtgctcgcc attaatgagg 240
tcaataaatg gctgtttgcc ccattcaag caaacctcga g 281

<210> 2014

<211> 365

<212> DNA

<213> Xenopus sp.

<400> 2014

gaattcggac tactacaggt ggcttcttcc attctctgtc ggactttgag ctggtccaga 60
cgctttttat ccacctccct ctttgcagc aggaagagca ggatgccaga tggaaagccg 120
atggcccatg ccagacctac ttcttcaga ggggttttgg ctttgcctg ggggatgtac 180
tctggtgtcc tagaggctg ttctgtagc tcagggttgg ccacagacg tgagtgggtg 240
tgcagctgct ttgcattgtg tggatggag gactggaaag cagagaactg tgacttcaca 300
gagtcaacca aggcagccca catgcccct cttctcactg acgccaacat ccttcgcgac 360
tcgag 365

<210> 2015

<211> 384

<212> DNA

<213> Xenopus sp.

<400> 2015

gaattcggac tactacaggt gaagtgtttt ggattactaa gtgaggagcc agtgctgtt 60
gcagactcaa ttgttgatgc tctggccaaa caccttgaaa ttatgcttc atttgggcca 120
ggagaaagag acatgattgt ttgagaaat gatattgca tcagacatcc ttctggccat 180
ttagaatcca aaaacatcag ttgtgtcgtg tacggagatg taaatggcta ctgggcaatg 240
gctaaaactg tgggctaccc aacagcaatt gctgctaaaa tggttttgga tggggaagtt 300
gaaagcaggg gctgtgtaat tccactgacc aagaatatct atggaccaat attagaacgt 360
gtcaggggag aaggaattct cgag 384

<210> 2016

<211> 339

<212> DNA

<213> Xenopus sp.

<220>

<221> unsure

<222> (114)

<220>

<221> unsure

<222> (117) .. (118)

<400> 2016

gaattcggac tactacaggt gcagatacaa aggcccaaaag ccagatccct gcttgaacag 60
tgaacaataa ccgttaaaga gggattttct ttgcttaaag tgaattactc tgcncmca 120
agaaaagatt ccaacaccag gacaaatata caacatgttt tctccccccc cccccccat 180
ttttttcttt tcttcccaat ctcttacgta ctttcaataa tataaataga tgtttggtt 240
ttacatcact ctagaagcct ttcttgctac aggggtgcag gatgaacctt tttaaaggag 300
tattttctcc atctttcttg acatgacaat gccctcgag 339

<210> 2017

<211> 430

<212> DNA

<213> Xenopus sp.

<400> 2017

gaattcggac tactacaggt ggggggcccc aaatacagcc atctgaacat ggaccttcat 60
gtgttcatag aggtcttttg accaccatgt gaattctata cacgtatggc acatgcaatg 120
gaagaagtta aaaagttctt ggttccgctg acacctgagt cttttccata ccaggacatg 180
atggatgata tctgccagga tcagtttatg gatctttctt atcttaatgg agcaccacca 240
gagcaaaccc gagggagatc aagaggtgga ccaaccaggg gccggggggg cctccacct 300
cctgtagctc cttcttctag aggaagggtc gggcctcttc gccctcttgt tccaagaggt 360
gccctggtc gtggagccat aacacgtggt gccagtcaa gccgtctgt acctccatct 420
gcttctcgag 430

<210> 2018

<211> 367

<212> DNA

<213> Xenopus sp.

<400> 2018

gaattcggac tactacaggt gaaaatttcg agagtgcac ttgaaaacga atgaggctcg 60
aaagctaat catcaagaag tggtagaaga agacaacga cagaagtgc ctagttaactg 120
ggaggcacgg aaagccgggt tagaatggga gctcaaaaac gaagagaaga aaaggggaatg 180
tgagctaat ggtgttgact ttgagcggga aaagcttttg gaaataagtg cagaagatgc 240
tgaaaggtgg gagaggaaa agaaaagaaa aaatcctgac ttgggatttt cagactatgc 300
agcagcacag ctacgccaat atcagaggct gacaaagcaa attaaaccag acacggaagg 360
actcgag 367

<210> 2019

<211> 345

<212> DNA

<213> Xenopus sp.

<400> 2019

gaattcggac tactacaggt ggagatgacg ggggaatggag cgaacgaccc gaggagaccg 60
gggaaaatac accggtataa agccccaacc acagagagct ctccaactca agacgaccc 120
acgcctgatt atatgaacct gctggggagc atattcagta tgtgtggtct catgcttaag 180
ctgaagtgtg gtgcatgatg tgcagtttat tgcctcttta tcagctttgc caattctcgc 240
agctctgaag acaccaagca aatgatgagc agctttatgt tatccatctc tgctgtggta 300
atgtcttate tacagaaccc acagcccatg tcacctaccc tcgag 345

<210> 2020

<211> 298

<212> DNA

<213> Xenopus sp.

<400> 2020

gaattcggac tactacaggt gaccttgtgg aaagtacaac gccatgggtc ttgaactgtt 60
 aggcccaagt ttagaagatt tgtttgacct gtgcgaccgg acgttcacat tgaagactgt 120
 gctgatgatt gcaatccaac tgatctcaag gatggaatat gtacactcca agaacctcat 180
 atacagagat gttaagccag agaactttct tatagggcgc cagggaaata agaaggagca 240
 tataatccac atcatagact ttggactagc caaggagtat attgacccgg atctcgag 298

<210> 2021

<211> 289

<212> DNA

<213> *Xenopus* sp.

<400> 2021

gaattcggac tactacaggt gggggagcgg agacagtgcg cggggcacac ggagcggagc 60
 aacagatatt ggaatacgcg acttggttgc acgttctatt gctgagacgc aagggaagaa 120
 caaggggccc cagggaaacg agcgacggat aagaggatcg gggtaaatgg tgattggagc 180
 ccgcaggatg caccgccttt ggtcttttct cttggtgctg tgcccagttt tgcaggcaca 240
 acagattact gtcaacgaga agatgactgg taccttgagc cagctcgag 289

<210> 2022

<211> 531

<212> DNA

<213> *Xenopus* sp.

<220>

<221> unsure

<222> (284)

<400> 2022

gaattcggac tactacaggt gctccaccaaa attcgtgacc tatttctgtg agcaagtgtc 60
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 aaagtgtctg gctgaaatga gctccttctg tggcgacatg gataaacttg aatccaatct 180
 gaacaaactg ttcgacaagt tgctggaatt catgccactt cctcctgaag aggttgagaa 240
 tgggggacagc gctgccaatg aagagcccaa acttcagttt agcnacgttg aatgtttact 300
 gttcagtttc caccagctcg ggagaaagt gcccgaactt cttattgcta aagttgacgc 360
 agagaagcta aaagacttca aaatcaggtt acagtatttt gctcggagtc tccaagtcta 420
 tattcgtcag ctccgcctca cccttcaggg aaaatctgga gatgctctga aaacagaaga 480
 gaacaaaatt aaagtcgttg ctctgaaaat aaccaacaac atcaactcga g 531

<210> 2023

<211> 408

<212> DNA

<213> *Xenopus* sp.

<400> 2023

gaattcggac tactacaggt gggtacacca caaagtaaaa ttgtatggat ttctgaaacc 60
 ttgtgcattg gatgtggtat ttgtatcaag aaatgtccct ttgtggcttt gtccattgtc 120
 aacttgccaa gcaatctgga gaaggagaca acccacagat attgtgccaa tgcctttaag 180
 cttcacaggt tgctatttcc ccgacctgga gaagtacttg ggttggttgg taccaatggg 240
 atcggaaaat ctacagcatt gaaaattttg gctggaaaagc aaaagccaaa cctgggaaag 300
 catgatgatc ctccagactg gcaggagatc ttgacctatt tcaggggttc agagtgcag 360
 aactacttca ccaagattct ggaggatgac ctgaaggcca tctctgag 408

<210> 2024

<211> 324

<212> DNA

<213> *Xenopus* sp.

<400> 2024

gaattcggac tactacaggt gttatttggga agaagcagtg atgaatctag atcacagcga 60

tccccgtgact agagaccaca tggggaccgt tttaaatcaa gtgcggcaga aactttacca 120
 gttcttgcaa gctgaacctc agaatgcttt acaaaaacct gctcgacgtc tgttgataat 180
 gctacaagga ctggtgcctc ctacactgag ttaaagatcc tgcaatgaaa atatttaatt 240
 gtgatccaaa attaccaaca tcttcaggca attcccattg ttaaaaattg aaagcattta 300
 ttttagtata cgctcgtgct cgag 324

<210> 2025

<211> 276

<212> DNA

<213> Xenopus sp.

<400> 2025

gaattcggac tactacaggt ggagaaagac cataaaggaa aggaaaagggt ggagagaata 60
 aaggatcata gcagtccac agattttgca atgaacgagc tagaaaaggc ctatcggaata 120
 agccagtcac caaaacgttt caaaatgcga gagggattgg ataaattaaa actggcagag 180
 ctgcgttttg ccaaaagagg agcagaacag gagaaaaaag ggcggtccag aaaggattcg 240
 gacagcgact ccaaaaacca agaccctaac ctcgag 276

<210> 2026

<211> 430

<212> DNA

<213> Xenopus sp.

<400> 2026

gaattcggac tactacaggt gctcgtatag acaaggggga gccatcacatg agcatccagc 60
 ctgctgaaga tccggacgat tatgacgatg gattctccat gaagcacaca gcagctgccc 120
 gtttccagag gaatcacaga ctgatcagtg aaattctcag tgaaagtgtg gtgcccgatg 180
 tccgttcagt agtcacgact gctcgaatgc aggttcttaa aagacaagtt cagtcgctca 240
 tgggtgcacga gcgcaagttg gaggcagaat tgttacagat agaggatcga caccaggaaa 300
 agaagagaaa attcttgga agcaccgatt cctttaacaa tgagttgaag cggctctgta 360
 gtttgaaggt ggaggtggat atggataaga ttgcagcaga gatcgctcaa gcagaagatg 420
 caggctcgag 430

<210> 2027

<211> 466

<212> DNA

<213> Xenopus sp.

<400> 2027

gaattcggac tactacaggt gatctcatta aagttactgt gttctgcagg gatattgcta 60
 tctactatg ctgttccatt tgggctgac aggcggggcc accccccttc ttctgtttaa 120
 gtatgtctgg gaagtggatg ggtgctgatg ggcagagaag cacctgttag tagactgcta 180
 ggctgtctct cctgtagcat tgtctctgaa cttaagctg ctgtattttt gggttacatg 240
 aaaagttaa ttttatgagt ccacttaaaa ttgcattcct ttagtgtaac aaggcaggac 300
 agagcctggg tgcgtgtac atagtggcta cacctccttg atacacaaag tgaattagtg 360
 ttcatatctc cagtaaacaa tgtcagaagt tcttaaaatg tttgtttata ctgtcctttt 420
 ctttttttac taaaacatgc aactattgta ctgaagtgc ctcgag 466

<210> 2028

<211> 485

<212> DNA

<213> Xenopus sp.

<400> 2028

gaattcggac tactacaggt gtggatgtag acacaccaag cgggacgaac aacagcgtaa 60
 gtaagaagcg ctttgaggtt aagaagtgg aatgcagttgc gctttgggct tgggacattg 120
 tagtgacaaa ttgtgccatc tgcaggaacc acatcatgga cttgtgcata gagtgccaag 180
 caaaccaagc ttctgtact tcggagggaat gtactgtggc atgggggtgta tgtaatcatg 240
 cgtttcactt ccactgcatt tcgcgctggt tgaagactcg acaagtttgc ccgctggata 300
 atagagagtg ggaatttcag aagtacggtc attagaagct ccgcatgcat agatgtgagg 360

cagtgtcagc gctgcagcct acttcagtc ggcagaacat tcaactgctt tccggcttag 420
 caccttgta attatgatct ctgacctgtt cgtcattgtt acacacaacc cacctcccc 480
 tcgag 485

<210> 2029

<211> 347

<212> DNA

<213> *Xenopus* sp.

<400> 2029

gaattcggac tactacaggt gactgtgtgg gggctgggga gacacagaga gggagagaat 60
 gcctgtgca gcctgcagtg tgccgccgcc cactacgacc acatggtaaa cctaataact 120
 aggtaaacct agtcagtctg tgctccaatt ctccaaaact tgccttttct ctctgtctgt 180
 cagagtgcgc tccagagggg tgtaggagag agaggggatt gaagctgttc tgctgcagag 240
 tagtgctgtt aatagaatga aggagctgtg gctgagctca gaactgagat gacactgtgg 300
 ctgctttttt tgcacaaaaa tttgagcaaa agaggggacct gctcgag 347

<210> 2030

<211> 302

<212> DNA

<213> *Xenopus* sp.

<400> 2030

gaattcggac tactacaggt gctatgtccg actccgagca gcagtatatg gaaacgaacg 60
 ccgagaacgg ccacgaagct tgtgatgccg aagcggccga gggtagggg gccgggggag 120
 gccaaaacga cgcgaagggc gatcagattc acgccagcaa aggcgaggag gaggcagggg 180
 aaatgtttgt cgggtgcttg agctgggacg cgagcaaaaa ggacttgaaa gactactttg 240
 aaaagtttgg tgaggtgtct gactgcacaa tcaagatgga cccaataag ggagatctcg 300
 ag 302

<210> 2031

<211> 355

<212> DNA

<213> *Xenopus* sp.

<400> 2031

gaattcggac tactacaggt ggaagaaaaa tttggccagg cagagaagac tgaacttgat 60
 gctcacctgg aaaatcttct cgcgaagct gaatgcacaa aggtttggac tgagaagatc 120
 atgaagcaga cagaggtgct gttacaacca aatccaaatg cccggataga agaatttggt 180
 tatgagaaac ttgaacggaa ggcaccaagc cgtataaata ccgaagagca attagctcag 240
 tatatgaatg atgctggtta tgagtttggc cctggaacag cgtatggaaa tgctctcatt 300
 aagtgcggag aaacacaaaa aagaataagg gtggctcaca gaggacttgc tcgag 355

<210> 2032

<211> 334

<212> DNA

<213> *Xenopus* sp.

<400> 2032

gaattcggac tactacaggt gctctccgca gcccacccc tccggccaag atgtaccgcc 60
 tgtatgagca ggtctctat aacagcttca tcgcagccgc catctacatt gtcctggggg 120
 tcttctcctt ctgtcaagt agactgaata agaggaaaga atacatggtg cgtgacctg 180
 cccccagttc agctagaagg tggcttgacc cacttgaaa ccaacctcc cacttcttct 240
 ctatgtttca atcaagccac cgcccacaga cccacttaaa ggggttgttc acctttaa 300
 gaacttctag tacgatgaag agaggattct cyag 334

<210> 2033

<211> 354

<212> DNA

<213> *Xenopus* sp.

<400> 2033

gaattcccat agcaacaaac agtagaacac acagctgttt actggacatt tagaggactc 60
 cactttaccc gctctcattt tgcgggtcttg ccgcccgttg atctggatat cgaggtcgct 120
 gatcaaaaac aaaaagtgtt tttcaagaat atgttttttg caagtttatc gaagcctggg 180
 aagaaccaag gaggatgggt ttgctcttca gatttgggaa agagtcgagt cgctccagtc 240
 gccaacgttt tagtagctgc cgtctcccaa acagccctct gtgtttttgt atgtttttgt 300
 gttacggttg ttggtttcat ggacatcgac aacgttttac cagcaaacct cgag 354

<210> 2034

<211> 384

<212> DNA

<213> *Xenopus* sp.

<400> 2034

gaattccata gcaacaaaca gttagctttta tacatgttag gaaaggagc cccccccct 60
 atgatatatt ggattatttg tcaagacacc caactgtgc aagaagagaa acagatgccg 120
 aatataactt gatttcagaa acaatgcaga attttaaatt gattgtattt agaaagtgtg 180
 atactttagt atgaggagac aaattacatt ttcgcaatag ttcacctaag caagcatctc 240
 catatttaaa ctggagaat tcaaccgtaa attaaaaata ccctacagcc ctaccctaca 300
 cataccctcc cagcctagct gttactccgg gcaaatgtcc aggtttttgt tcatccctc 360
 ggtgcagatt ccgtccagct cgag 384

<210> 2035

<211> 338

<212> DNA

<213> *Xenopus* sp.

<400> 2035

gaattcccca tagcacaaac agtaccagct tccagctggt gcctcagagg aaatacactg 60
 acaacttcaa aacttgataa cgacaagaaa ataaaaatag aaaaatgctg agagtgcga 120
 ccattgttat cgtctgcgt cttagcattac atccacttta tgtctatgga gatgatggaa 180
 aggggggctg tgcgcctaata caagtctgga attctttagt aactgctgt cccttgaatt 240
 gtcagaactt cagaaacca ccagatgtgt gcatattgtc ctgcaagaga ggggtgcttc 300
 gcaaggaacc ctatattttt caaaatgggg gactcgag 338

<210> 2036

<211> 364

<212> DNA

<213> *Xenopus* sp.

<400> 2036

gaattcccat agcaacaaac agtacacagg tatattgaaa tcttcaagag cagtcgggct 60
 gaggttcgta caaactatga tcttccaga aaactcttg gtatgcagcg accgggcccc 120
 tacgacaggc caggagccg cagaggctat aataatttag gcagagggtt tgaccgaatg 180
 agacgtggag catatggagg aggttacagt ggatattgaag attataacgg atataatgag 240
 tatgtttttg gtgcagatca gagatttggg cgtgtgtctg ataatagata tggagatggc 300
 agcacgtttc agagcacaac tggccattgt gtacacatga gaggactccc ccacagaact 360
 cgag 364

<210> 2037

<211> 582

<212> DNA

<213> *Xenopus* sp.

<400> 2037

gaattcccat agcaacaaac agtaggcgct aatatacctg cgtgtgacgt cacggattcc 60
 gaaagagata ggaactggag ccctgagtaa agaataattg gaggaagtcg ggctgttgcg 120
 cagaattctg aactattgat caaacgctct accaagtctc acatagaaca gcgtttgggt 180
 gtgactgc atccgtaagt gagccgctc ttatttctc aggaccgggt actgattcgt 240
 gtcttcgggt cagaccgaga taaacaaacg ggccctcagaa accaatcggc agactccatt 300
 cgtcttgtag agcccgctc cgcggatccc atagtaatgg cgggtgtggtt ggggtggcctc 360

ctgctgctta tgttcccttt ggcgtggca cagcagcagc cagcatgtga tggatactcg 420
 gtcttgatg gggttggtct gcctgcgata ggtacaccgg ctccggcagct aatgattgag 480
 ctagactcat caccgggtgc caactccgag caggactgtt gggatctttg ttgttccacc 540
 ggcgctgcg aactggctga gatgtccgag ggaagcctcg ag 582

<210> 2038

<211> 114

<212> DNA

<213> *Xenopus* sp.

<400> 2038

gaattcccat agcaacaaac agtagcttgg cggctctcgag ggttgtgtag ttgtgaaatc 60
 atctgcatgc agttgtccat gttctacaaa ttcagttttg tagtctgtct cgag 114

<210> 2039

<211> 344

<212> DNA

<213> *Xenopus* sp.

<400> 2039

gaattcccat agcaacaaac agtaaaagct gccccgggtca gtcacatgca ggatcccttc 60
 ccttggggaa atgctcacct tcctatcaga tgctaaagcc cttgcaaacc tttagcaatt 120
 cctatgtaaa tatataacac tatgattttt ctctgatatg tgctctttaa gagcaatcta 180
 gctttaatag gcaagctctt gagtgctgag cagtacttac atagggaaca gaggagccct 240
 tattgcatgg caggaaaatg ttacaaggcc tctcccagct ggcagpcatt gtgggtttgc 300
 cagaactgca catctctgcc acatggcctc accccacct cgag 344

<210> 2040

<211> 304

<212> DNA

<213> *Xenopus* sp.

<400> 2040

gaattcccat agcaacaaac agtaagttcc tgttgtgagt ctgggtgagt tcgctgaggg 60
 aatggagcga ctgtgtgct tagtggtcct ggctctctc tgccgggtcg gtgccgctga 120
 caccgggct aactgctctt tccccgacct ggaaggcacc tgggagttcc aataggaga 180
 gggcacggg gcaactcggg acaagacct tgactgtcc cagttgggta aagtgagaac 240
 caaactgaca gtcacactga aagaactgaa cattgtctgag gatcagaatg ggaacgtgct 300
 cgag 304

<210> 2041

<211> 405

<212> DNA

<213> *Xenopus* sp.

<400> 2041

gaattcccat agcaacaaac agtaaggaga tcgtcactcc ctctgtggata aggaagtagc 60
 agcatggttg ttgtgggaa gacgagcgc tttgcggcag gtgtttgcgg ggcattgttc 120
 ctccgggtatt gcatttactt cgacagaaaa aggaggaatg accccaactt caagaacagg 180
 ctgcgagaaa aaagaagaaa acaaaagatt gccgaagaga gagcaggaca gtcaaggtta 240
 ccagatctta aagatgcaga ggctgtccaa aaatttttcc ttgaagaaat tcagcttga 300
 gaggagtgtg tggctcaagg tgattttgaa aagggtgttg atcacttaac aaatgcaatt 360
 gccattgtg gtcagctca gcagttgcta caggtaatgc tcgag 405

<210> 2042

<211> 251

<212> DNA

<213> *Xenopus* sp.

<400> 2042

gaattcccat agcaacaaac agtaagctgg agaagccaga ggagcctggg acaagacatg 60
 tgaggaaatga agaccagagt ggaaggcaga gatgaagccg aactctattc ccctgctttt 120
 ttggtacact ggatgagtga ggagaactac attttcacct gtcagctctt caccctgtc 180
 tgctaaactg gttacagata gaacctgtgc atccttctcc attccttaa ttagtacatc 240
 actggctcga. g 251

<210> 2043

<211> 291

<212> DNA

<213> Xenopus sp.

<400> 2043

gaattcccat agcaacaaac agtaaaaacc aaaaagagc aggcgccaga agaagagacc 60
 cctgtagatg aaagtacaac aggggtcccc caggaaccg agaccaagga tggagccg 120
 gaaacatctc cagaagcagc tccagagaat ggtgaatgtg acacagcagc gccctctagt 180
 gataatacag aggaagtaca gcctgagcct gctgccctcc ctccaactga agattccct 240
 aaacctgtag agagtgaagc caacacagaa gccccagcg aacctctga g 291

<210> 2044

<211> 360

<212> DNA

<213> Xenopus sp.

<400> 2044

gaattcccat agcaacaaac agtagtggtc agcaccaaat tgcaggttga ttaaagggtt 60
 caaagggagc agcacagcct ccaaagacga gattacaaag ctactaagc tcaatgaagg 120
 ctgagaagta aatcccttga gaagcatctc ccatagattt gcttaccctg ctaccagctg 180
 tcccttacc tgggaggttc aagaacggca tagtggtgt cattatatcc tccagttact 240
 ggtctgcag gtgtaatat gaggcactgt ccactttgac tgetgctctt tatgctgcct 300
 ctgccccaga gtccaatatt cctctcctag gttgcttctg tagatataga gctactcgag 360

<210> 2045

<211> 281

<212> DNA

<213> Xenopus sp.

<400> 2045

gaattcccat agcaacaaac agtaaattha agtatattct ggcaaatctg gttagctttg 60
 tgccaagcaa ctggtcaaag gggcgggggt tttaaataaa ctaagtttgt ttgaaaccat 120
 aaactgcatt acactttgtt ctctggggca ctgataatta atatctgcaa tcagattaat 180
 tgccgttaaa tgcagcagtt tctagaggaa cacaactag ttaagtagtg tttgttcaca 240
 gatgtataaa taaagtgtgc aggtgcttgc ccttactcga g 281

<210> 2046

<211> 467

<212> DNA

<213> Xenopus sp.

<220>

<221> unsure

<222> (71) .. (72)

<400> 2046

gaattcccat agcaacaaac agtaggaggg gatccccgtt tttgagaaga agaaaaagaa 60
 gaaacaggtc nnatgagagg ggcttgagaa ccagcccagc tgggaaatga acatgaggac 120
 agacctgtt gagagcggca aggagagaat cctgaaacta ctcaacacgg gctcagtaaa 180
 ggaactgaaa tccctgcaga ggatcggaga caagaaggcc aagctgatta ttggctggag 240
 agaagtcaat gggcctttta agaagtggg agagtggcg tgtttggaag gaatctctgc 300
 taaacaagta tcgtccttta taaaggcaaa tatcatgagc agcatcgcca gctgaaacct 360
 gtaccatcat caggctgcgg ccggtgctat acacgctcca agggccactg attttattcc 420

tcaccaacaa cttgaaatcc ctgagctcct tatggcaaag gctcgag

467

<210> 2047

<211> 294

<212> DNA

<213> Xenopus sp.

<400> 2047

gaattcccat agcaacaaac agtaaatgat tattgttatt tttttttttt ttatttcaca 60
gcaatagaac atacatttgt tgtttgcaca gagggtgcaga gatttcccg tgggtcgct 120
gacctgattt tatttatgtt tttatttgat gtgacacaga atatgaattt ttggaaataa 180
tttatcccg ggcaaaaaa cataaaagtg gagaatgcag ggaccattcc taaactccct 240
cctatataac cattatccat ctgttacttc agagcaaata ccactcgact cgag 294

<210> 2048

<211> 525

<212> DNA

<213> Xenopus sp.

<400> 2048

gaattcccat agcaacaaac agtacaggga tgcgccatg taaaacagaa gggcaccatg 60
tgtgcgttat gagtctgctt tattttctat ctgagacaag cgttgcctgc cctgtcaaca 120
aaatattatt ttattgacac tttatgaata gagtctagc catttttgc actgtcatgt 180
tgtagaatgg accaaaaata accagcagac ccatgaacat tgcttaattt tttctgatg 240
ttgcaaatg agtggccgga cacattttag gagtcaagca atcatacaag ttctacattt 300
cctactagat cctctcaatt catccctata aatgtacagt acctggccat taaaggggaa 360
ctaaagtcta aaatagaata atgctagaaa tgctgtattt tgtgtactaa acatgaactc 420
actgcaccag aactatgtta aacatctttg caagaccaag actgtgcaca tgctcagtgt 480
ggctctgggt tctgttggga ggttaagctt agggatttac tcgag 525

<210> 2049

<211> 415

<212> DNA

<213> Xenopus sp.

<400> 2049

gaattcccat agcaacaaac agtaagaagt ccgtgtctgc ttatccagct gcaaaatgcc 60
caactgggga ggtggaaaca aatgtggagc ctgtggcagc aatgtttatc atgctgaaga 120
agtgcagtgc gatgggaaga gttaccacaa atgctgtctc ctttgtatgg tatgccgaa 180
aaacctggac agcaacaactg tagccattca cgatgatgag atttattgtc gatcatgtta 240
tgggaaaaag tatggcccgga aaggatatgg atatggccaa ggagctggca ctttgaatat 300
ggacagaggg gaaaggcttg gcataaagcc ggaggaaaat ctggcacggc agaataccag 360
ttcaaatcct tctaagtatg ctcaaaagct tggaggtgct gagaaggacc tcgag 415

<210> 2050

<211> 414

<212> DNA

<213> Xenopus sp.

<400> 2050

gattcccata gcaacaaaca gtagccggaa ccatgategc taggggtgta ggtcctcggt 60
accagcaact ggcaagaac tgggtccc g tctagccac ctggggatca gtaggagcag 120
tgggactgat atgggctaca gactggaggc tgtctcttga ttatgttcca tatgtaagt 180
gaaagttaa ggaatgagaa taaacttcta ccgatccact gtctactatg agcatgtcct 240
ggatttggcc cagatcacaa aatcttctgt gtccagtatg ttaatgcaag gaaatggaca 300
gaccgtcttt acaccttggg tgaagctgct tatttatgaa taaatgttgg acttgcgtat 360
ttcagaatta tttgctgaaa tgtattggtg tctactttaa ctgtactgct cgag 414

<210> 2051

<211> 432

<212> DNA

<213> Xenopus sp.

<400> 2051

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gaattcccat agcaacaaac agtaattccc atagcaacaa acagtaaaaa ttgcccagta 60
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gagaaagtgc ttgctttgga gcacatgcct gagccagaga gttctgaact ggaagtggaa 180
cataagtctg agccagagag ttccgaactg gaagtggagc atggagagaa agtgcttcct 240
gtggagcaaa tccctgagcc agagagttct gacttagaaa tggccaatca ttctgttgaa 300
caacaaaaag ttccagcggg tgtattcctg actgcagctg atgcccacat actcccttcc 360
tcgcccacac caaatatata gaaggaaaat gagcaggaag cacctaagga gccagagcat 420
ggtacactcg ag                                     432

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<210> 2052

<211> 364

<212> DNA

<213> Xenopus sp.

<400> 2052

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gaattcccat agcaacaaac agtaagcaat tgaaaaattt gcattcagta agataacttaa 60
ttaaatggta acctcccctt taatgacaca aggcattgcta aatatcagat ccatcgccag 120
gatgagatag aaatgtagtc gcataattac acaagggcaa aatcgaatcc taagttactc 180
cagcagtggt ggaaacacaa cgtagcagtt ctgttaaca actaattgac ctttcagtcg 240
acatcaaaga caagttcact ttctcctcc atctgaactg tgcattgtgt aatcaactgg 300
aagtgcacatt gcattgttga aacgggatag gaacctcct cccaatgcac ggcaataact 360
cgag                                     364

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<210> 2053

<211> 393

<212> DNA

<213> Xenopus sp.

<400> 2053

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gaattcccat agcaacaaac agtaagttaa tggccacgtt ctattttatt ttgaaatga 60
gacttgctgt tcagcattgc cagtataatc agaaagagga ctctgcagca atgttgagga 120
tctacttacc tagacaacgt cattgagaag atttgaggac cagaatctgt ttttatgtct 180
gctgacttga aatccctttc ttataataat tggactgggt aggggtgttc ccagcaaagt 240
actgtattat tgtgattgta acaccacaca gaagaacata taggattaag ctatttgcca 300
gatgcacaag tagcattgct cccgatgtgc tgattaggat atctgcataa aatgtgcctg 360
tgtgtatacc tcaataaatg tccaacctc gag                                     393

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<210> 2054

<211> 332

<212> DNA

<213> Xenopus sp.

<400> 2054

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gaattcccat agcaacaaac agtagcgcta aagcgacacg ataaacacag tgggagatag 60
caagtcogta gcgcacaggc cgctgcccc tctcactctc cagtggaaatg atcgctactac 120
ccgcccgtgt gttcctcgtc ctgctggttt tctctcaagc agcaaaccca tgctgttcaa 180
atccctgtca aaaccaagggt gtatgcattg ctgttggttt tgaccgctat gaatgcgact 240
gcacgagaac tggcttctat ggagaaaact gcactaaacc ggaattttta tcatggttga 300
ggctgaagct gaagccgacc ccgctactcg ag                                     332

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<210> 2055

<211> 383

<212> DNA

<213> Xenopus sp.

<400> 2055

gaattcccat agcaacaaac agtagcactc tcaatctcat agtttttact tacaagggaac 60
 acccaagctg actccatctc tctcagtcgc ccaccgcgtg taagttggga gttcttcctc 120
 tgcagttca agtcttgaat cttttttcgt aacttctgaa gatctttctg cgcacagtca 180
 atcatatgaa ccaggttctc gttattggct ttccagacgt tgcagccgtg ctgggacatg 240
 aactccaagt tctctattct gacggcctgg tgttccagtt gggccatcga attattgaca 300
 cattcctgcc aagccgtgat gtcattcctc tggccggatg agggggccgg taactcatac 360
 ctcttcacgc tgagaagctc gag 383

<210> 2056

<211> 324

<212> DNA

<213> Xenopus sp.

<400> 2056

gaattcccat agcaacaaac agtaaggaga aaccatcaca tctgtcctga aaaccgggaa 60
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 ctgatctcca agatatcggc agaagacgtt tgcgagagtg gcctctacac aaacagcggc 180
 aaatgctgtt ccttgtgccc agcgggattc ggggtggtgg ttccctgcgg agattcagat 240
 actaagtgtg aaccctgcat agagaactct actttctctg atgtcagaag cgccaaggca 300
 aagcgccagc cagtggttct cgag 324

<210> 2057

<211> 450

<212> DNA

<213> Xenopus sp.

<400> 2057

gaattcccat agcaacaaac agtacatgaa tcaaaattct aattcctgag aatgagacat 60
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 cagtgtattt tgtgccctta caaagaatg cgttttcttt ctttattttt aggattttat 180
 gagctgagtg atgggacttc aggatccctc tccaattcct ccaactcagt gttcagcgaa 240
 tgtttatcca gctgccactc cggcacctgc ttttgcaacc ccttggaac atcattaaac 300
 ctacacagatg gtcaagcaaa gtctgcagac gactttcttg aatggctgga ctacagagaa 360
 agteaactg aaactggcac agttcgccgc tccttttctg caccacattc caactctgtc 420
 gacattgggg cagatgtgca ctccctcgag 450

<210> 2058

<211> 494

<212> DNA

<213> Xenopus sp.

<400> 2058

gaattcccat agcaacaaag agtacaactg cagagaaaat gaagctgctt cgagcttgcc 60
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 cctattatgc cagccacatg gttttgcaac agaagccctc acaagctgtt atatggggct 180
 atggagaagt tggggcttct gtcacagtct ctctttataa aggacctgag accattttaa 240
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 tggccctgca cgacattttg ttggtgatg ttggccttg tgggtggcag agcaacatgg 420
 agatgactgt ttcacaggtt ttaacgctg gtaaagaact ggcaaaagct gctgattatc 480
 ccaaccttct cgag 494

<210> 2059

<211> 141

<212> DNA

<213> Xenopus sp.

<400> 2059

gaattcccat agcaacaaac agtaccata gcaacaaaca gtaggcagct tccttgtctg 60
 aggagttggc tagtttggtt aatccacagc caaattttac ggtcccgag gacgatcagg 120

atgaagccac tgttgctcga g

141

<210> 2060

<211> 549

<212> DNA

<213> Xenopus sp.

<400> 2060

gaattcccat agcaacaaac agtacttccc atagcaacaa acagtaattc ccatagcaac 60
aaacagtacc catagcaaca aacagtaccc atagcaacaa cagtaattta ctgtccctagt 120
agctgcatta gactgtaact tatttgcccc gtctcctaga gaagttaata tatgtccctc 180
ggacacgtga ccacgatttg cactagtgtt cattccggct tgtgaattgc tctgtggaag 240
cagtgaagcc ccccaacacc tgactgcctg ggattcccat ccccagga gcaagtgatc 300
tgaatggggg gcaactaacc accaacactt ctatttgcta aactaagctg caaaccaga 360
gagcaccccc tcacctcttg tgagtggaca gaaatcttta tttgggggtcc taaattgccc 420
cgttgacccc ccaaactttt accattgatc tcttttaact gtgtcgtaag taccaccaat 480
tgcccccttt tccccaaag agatcagaga gaaatgcctt ttcctaaaat ctccagcctc 540
atgctcgag 549

<210> 2061

<211> 410

<212> DNA

<213> Xenopus sp.

<400> 2061

gaattcccat agcaacaaac agtaggggtt tcatcatctt acaacagtac aaacaagggtt 60
ttcaacatgg ctgccattcc atccagtggg tcaactgtcg caaccatgt ctattaccgc 120
agacgcttgg gatccacttt cagcagcagc tcatgtggga gtgtggacta ctctggagaa 180
gtcatccctc accaccagg tctcccgaaa gctgatcctg gtcactgggt ggccagcttc 240
ttttttggaa aatccaccca tctgtcatg acaaccgttt cagaatcccc agagaactca 300
ggaagtttcc gtatcaccaa tggactgggt ccattgtggc tgactcaaga gtctgtcgag 360
aagcaaaaag tcagtgactc caagtctaac tccagcccc ctgcctcgag 410

<210> 2062

<211> 433

<212> DNA

<213> Xenopus sp.

<400> 2062

gaattcccat agcaacaaac agtacagcat gttgcagtgg aagaaaaaaa tcttgaaaag 60
tgtcggattc tttttctgcc tgcgtacac atttacattt cttctgaatg ggacatctcc 120
tggactgttt actcaggacc agcaaaagga ttctgggtct cagatgttaa gtaatcaaaa 180
aagggacact taccatgccc cagatgggtt ctgggaaatc aaatccaaac ttggtcctac 240
aaaagcaata ccgaaaacag aattgcagcc aacagagtgg gatatttact ctactaactg 300
ttctgccaac tggaaatatta ccaaaatgga atggtataaa tcattggaac cacatttcca 360
acagttcatt ctctaccgac actgccgcta ctttctatg attattaaca accagcagaa 420
atgcagcctc gag 433

<210> 2063

<211> 378

<212> DNA

<213> Xenopus sp.

<400> 2063

gaattcccat agcaacaaac agtactcatt attcgtcttt atcggaggag ccgggggtcgg 60
cggtactgct gtggtttcgg agaagggaca ggtataggga cagatataag gacaggtgta 120
gggtttccag gtgaaactag agccggagtt tcgtccttgg ttgagattga aggaggggcc 180
gtccgaccgg tctgacctgc tggggaagag gataaagaat cggccgagga agcgattatt 240
attattatta agtcggacag tcgcaagact ttgggttccg tctgttgag gatgaagttc 300
gtgtcgggtc tgagattggg ggcagcgcta atgtgtctc tctgtgtgac acgagccag 360

aatccaggag cgctcgag

378

<210> 2064

<211> 280

<212> DNA

<213> Xenopus sp.

<400> 2064

gaattcccat agcaacaaac agtaaatctt tgcaagtggg ggaccacaag cgttggtaaa 60
tatcatgagg acttacagtt atgagaaact tctgtggacc acaagtcggg tgcttaaggt 120
gtatccgtg tgctctagca acaagcctgc tatagttaa gctggtggaa tgcaagcttt 180
aggactccat ctacagact caagccaacg tttggttcag aattgtcttt ggacactaag 240
aaacctttca gatgcagcaa ctaaacagga ggctctcgag 280

<210> 2065

<211> 316

<212> DNA

<213> Xenopus sp.

<400> 2065

gaattcccat agcaacaaac agtactgtgt gtgggtccgg agagctgcag ggtcaagagg 60
gggtgccggc ggctgtctgg tgaacttggc caacatgagg aagttttggg caatcggtct 120
ttgttgata ttattggctt ttgcatctgt tcaagctgaa gatgaagttg aagtggatgc 180
tactgtagaa gatgacattg gaaaaagtag ggaaggatct agaacagatg atgaagttgt 240
aagcagggaa gaggaagcaa cccagttaga tggectcaat gctgctcaa ttaagaaat 300
acgggagggg ctcgag 316

<210> 2066

<211> 333

<212> DNA

<213> Xenopus sp.

<400> 2066

gaattcccat agcaacaaac agtacacacc agcaacacca tgaggatagg agccatcttt 60
gggttgggac ttgcatatgc tggttcaaat cgtgaggatg ttctgacctt ctgtctcca 120
gtgatggggg atttaaagtc cagtatggag gttgttgagg tgacagccct tgctgtggg 180
atgatagctg tcggtacctg taatgtgggc gttacatcca caattctaca aactatcatg 240
gagaaatctg aacaggagct aaaagataca tttgctcgct ggttgccact tggcctaggg 300
ctgaatcact tggggaaggg tgaagcactc gag 333

<210> 2067

<211> 313

<212> DNA

<213> Xenopus sp.

<400> 2067

gaattcggac tactacaggt ggggcagaga aaatccgcca tgaaggacgg aaaagggaca 60
gggaaagcga agaagcattg gagaccgtac aagcaaagtg tgatggcagg cagtcagaag 120
gaaggaaaag ggttttcttt gtggagaaaa caaaagatcc agctggaata taaaaaacta 180
ctaaggaaac aaaagaagcc cagtactgtt aatgaagatc tctacaaaga caattaccct 240
gaacacttga agcacctgta cctagctgaa gaagaaatgc tgaaaaagaa agaagaaagt 300
aggaaacctc gag 313

<210> 2068

<211> 412

<212> DNA

<213> Xenopus sp.

<400> 2068

gaattcggac tactacaggt gattcaccct cgggcagcac gacatgccca aactccggcg 60

ggaagatcta caaggagctg tggcactgca agctggcgggt gtgaggccac gcgtcttcta 120
 acgtgagaca aacgtgtgca tccaacgtgc gccattattg taggggaccc tgcggagact 180
 ttttacttgc ggtggtggcc tctccggggg ctgcgctgat catcgtcttt gcccttccc 240
 ggtggaccgt actacctgtt taccacagtg ggtgcctcgc ccaccgtac attgaaggat 300
 tctgtggatc aattccaggg gggagtcctt gctgcgccgt ttcgctgggt gatcgtcttt 360
 cctcgtcctt cgtgtcccggt gccctctcca caatcccccc ccaaaactcg ag 412

<210> 2069

<211> 310

<212> DNA

<213> Xenopus sp.

<400> 2069

gaattcggac tactacaggt gacccacccc tgctgttaac cctctttttg ccagttgttc 60
 aacaagctgg gaaagagttg ttaaatcagt ctgtagcatg ggaaagctgt gaaactgtac 120
 agttaagatt atgtatttgc ctttaatttg gactgttccc ccccccccc agtttgctg 180
 ttatcatctg tgtctgagct gcctctgtaa tatggtctgc tcttaaacct gggactctgc 240
 agtgatttag aataccttac ccccttctt tgtaggtct tgattttaaa taaagaacca 300
 agtgctcgag 310

<210> 2070

<211> 315

<212> DNA

<213> Xenopus sp.

<400> 2070

gaattcggac tactacaggt ggaattcctg agtttcactg agcgtaccc gagcatcgtc 60
 tacaatatcc tctcttccag tctgactagt gccctgggac agacctttat cttcatgacg 120
 gtggtatatt tggccccgt tacttgcctc ataatacaga caactcggaa attcttcatc 180
 atcctggcct ctgttatact gtttctaat cgcacagca gcattccagt ggtagggacc 240
 atcctgggtg ttttaggtct gggactggat gcaacgtatg gaaaaggatc caagaaaccg 300
 cccactgcc tcgag 315

<210> 2071

<211> 345

<212> DNA

<213> Xenopus sp.

<400> 2071

gaattcggac tactacaggt gcatacaaa gaattggaaa gttcgaggcc aggttcttcc 60
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 tggcattcca tccaaatgga aagagttaca gcagtggagg agaggatgga tacgttagaa 180
 tacattactt tgactcgcaa catttegact ttgaatttga atcctgagac agttgcttca 240
 tgcttgttta tatcctactt aatttgctc cacacacaca atttaattga ttgctcaatt 300
 acatcatgca gattgtatac ttttacaata aatggaaccc tcgag 345

<210> 2072

<211> 310

<212> DNA

<213> Xenopus sp.

<400> 2072

gaattcggac tactacaggt gttactttcc agggaaaaat taaacaatgt ctttaactcat 60
 tagagtagtt gctgtgcaga tcttcccag ttgcctctgt gtttagggag acattgtaac 120
 actacaaaaa tgataatac actacttttc ttttctcac tgactctgtt cttcactttg 180
 aatagaaatc tcaggcactt ggacactatc tggcctatac cagcatcatt catatacctt 240
 tcttctgct tgaaacccct tacaagttgt ggaatcctga cgtttttctc tttttggctg 300
 gagactcgag 310

<210> 2073

<211> 320
 <212> DNA
 <213> *Xenopus* sp.

<400> 2073
 gaattggact actacaggtg aaaatacaga gtggctttga ggattgcaaa ggacccatca 60
 tttgaacggc tgccttgctc tcaccctgga acctatgcag atgactgcct tgtacaaaga 120
 gttactcagc acaaattgta tattgtggct acagtggaca gagacctgaa aagaagaatt 180
 cggaaaatcc ctggtgttcc catcatgtac atctcaaacc acagatataa tattgaacga 240
 atgccagatg actatggagc tcctcgtttt taagatttgt ttgttcggca ttcaaacctt 300
 tattataatg tggactcgag 320

<210> 2074
 <211> 406
 <212> DNA
 <213> *Xenopus* sp.

<400> 2074
 gaattcggac tactacaggt ggtgacactg tatgtgacag aggaaacttg cagtgggcaa 60
 atatcaatac gtttccccaa tcataggaac attatcattc ccattggata aatctgccac 120
 taagtgtttg ggaatcaaga gaccagaga caatagagag cccaaggcat tctaattctt 180
 gttaaactac aactcacctc acttatttgt atagacattg gctttatcca ataacagtgc 240
 taagactccc attgccattg tactttctct gcacaagtat cctggaagtc ttcccttaaa 300
 ctttgcctta attcagagtt tccatgtggg tagtgtattc tgaaccttgg ctgtatgttt 360
 ttgagggcca aatcattctg atgtatactg caatgtgtac ctcgag 406

<210> 2075
 <211> 382
 <212> DNA
 <213> *Xenopus* sp.

<400> 2075
 gaattcggac tactacaggt gcaagcacag gaaacaagag tacgaaaaga taagtgaaaa 60
 gaagatgtcc actccagttg aggtgtttgt taagggcttt cctgcagaat ttgcaatgta 120
 tctgaactac tgccgcggct tacgatttga agaggcaccg gactacatgt atctgcgaca 180
 actattccgt attctgttca gaacattaaa ccaccagtac gactacacat ttgactggac 240
 aatgtttaaag cagaaggcag ctccagcaagc agcctcctcc agtgggcagg gccagcaagc 300
 ccaaaccctc acaggatttt gaacatgaaa ggagcagaga tcacagacca ggctggagct 360
 ggacctgtca ctccctctcg ag 382

<210> 2076
 <211> 615
 <212> DNA
 <213> *Xenopus* sp.

<400> 2076
 gaattcggac tactacaggt gatcaggagt cggatttagt tcgctaggca caaggattcg 60
 gctgaatcca aatcctgctg gaaaaaggct gaatcctaaa cagaaattct ggattcgggtg 120
 catccctagt tttttaataa accgggacca attgctctag aaatacagtc tatgaactag 180
 gtcatttacc ttccctctct gtaggaaagg acttggtgtt ggagcaccgc gtatgaattt 240
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 ctttgcggag acctgttaat tctctgtatg ttcacgcgtt actttctttt cgtcctacaa 360
 aacctgcaat gcttttgtct gaattctgtg ttgttttttt taaagtttgt ttctgtgaga 420
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 ttatattcat tccatgcaat ctttcattta gtccccctg ctttccaggc aggattccga 540
 cactttacaa accittccat ttggagacct ctctggggaa taaacgggtt caaataacca 600
 cttcaacggc tcgag 615

<210> 2077
 <211> 397

<212> DNA

<213> *Xenopus* sp.

<400> 2077

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gaattcggac tactacaggt gagcgagacg aatcgggaat gctgaatcct tccaatttat 60
ttcaccaaac cgtgtcaaat aattttgttg atatttcaaa aggtctcccc atgtctttgt 120
atggggggcac agtgatccct tcacatacac aaatgtcggg cyctcctgat tgtcccgat 180
ttaatggagt tcaaccacaa gatgctgctg ctgctgctac ttggagtcca atgattaagg 240
tggtgcccag ttcaqtcgaa tgtacggatg cccagaagat ttggccaggg acctggacac 300
cccatattgg aaatgtgcat ttaaagtacg ttaactgaat tagaggaaac cgttcaacac 360
aaaactgaaa tacttgagcg caccgggggtg actcgag 397

```

<210> 2078

<211> 410

<212> DNA

<213> *Xenopus* sp.

<400> 2078

```

gaattcggac tactacaggt gaccaccagg ccgctgctcc aaccacttgc aggagaagat 60
tcaaaagtgt tatgagaaga agttaaaaga agggacagac atgaaccgca ttatccaaaa 120
aaagaaagaa ttccggaacc ccagcatcta cgagaagctc atccagtttt gctccattga 180
tgaactfggc actaattacc ctaaagacat gtttgaccca catggatggt ctgaagactc 240
ctactatgag tctcttgcta aagcccaaaa gattgagatg gataagctgg aaaaggccaa 300
aaaagaacga acgaagattg agttttgttac aggcactaag aagggcacaa cgaccagtgc 360
aaccacaggc acaaccagta ccacaaccac atctacagca gatgctcgag 410

```

<210> 2079

<211> 517

<212> DNA

<213> *Xenopus* sp.

<400> 2079

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gaattcggac tactacaggt ggaacccctc ctgttgctct tatataacct ccgtcttgtc 60
agtcgtgtgc aaacgctttt cctgtgccag tectgttttt tcatatcttt taagacccca 120
gctgatctgt atgcatagca ccaggacctg gcagacatat tggaaactat tggcattatg 180
atcttttttt ttttttaaat ggggagggtcc gtctccttgg ttgttattgt cagcacccta 240
aatgccaaca tttaacaggg cagagcagag ttttggtgtg ttttgggttg cggtagcctg 300
gcgagtctct tgcttttccc gcaaaggggc atcgggtggc acatattggc agtactccat 360
gccactgatg tcaacctgtt ggtccgcaag cctttgttga actttgtagt tcaataaacc 420
cagtcggggg agtcaaaacc tacacttcag ttgatgcacc cacttttatt aatgacaccc 480
tgaggctaaa gtgttacgtt aaagggaccg gctcgag 517

```

<210> 2080

<211> 371

<212> DNA

<213> *Xenopus* sp.

<400> 2080

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gaattcggac tactacaggt gttagaggga ggcctaggcc tgtgctatca cccgaacctc 60
aaggtcctag tctgagtgat agcccagaac cttgtgatag cactgagtga cactacaggg 120
caacactaca gggcagctgg gaactgaaat accccattac tgccaacatt ccattccac 180
aagcaaagaa atagccagaa agcagaaaag aaagttagga atttgatcag agtgttgagt 240
tctctataaa tgggaaggtaa aagaaaggca ttggattgga ttgggcagca gagagatatg 300
aaggaaaggt cagggttagtt agcagggggc ggtaaggag tttgaattgt ttagcatggt 360
aagagctcga g 371

```

<210> 2081

<211> 687

<212> DNA

<213> *Xenopus* sp.

<400> 2081

gaattcggac tactacaggt ggtgagaagc agtagatctc aggggagctc tgcaacaatg 60
 tggcatcttg tagttgcaact ctgcttctctg gcctccatcg ccaattcccg ccattctccc 120
 tactttgccc ccttgtcgca cgatatgggtg aattatatca acaagggtcaa cactacatgg 180
 aaggctgggc acaactttgc taatgctgat gtacactatg tgaacggct ctgtggaaca 240
 caccttaatg gccccagct tcaaaagagg tttgggtttg ctgatgacct agaccttcca 300
 gacagctttg attccccggc agcttggccc aactgtccca ccatccggga gatccgagat 360
 cagggatcat gcggtctctg ctgggctgtt ggtgctgttg aagccatctc tgatcgtgtt 420
 tgtgttcaca ccaatgggaa ggtgaacgtg gaggtgtctg ctgaagatct cctgtcctgc 480
 tgtggcttta aatgtggcat gggctgtaac ggagggtatc catctggagc ctggcgattc 540
 tggactgaga ccggtttgtt ttccgggggc ttgtatgact cccatgttgg ctgcaggccg 600
 tactctatcc ctccctgcga gcaccatgtg aatggctcca ggccgtctcg caagggggaa 660
 gagggcgata ccccaaagt cctcgag 687

<210> 2082

<211> 602

<212> DNA

<213> *Xenopus* sp.

<400> 2082

gaattcggac tactacaggt gctactgaga ggaggaagat gcagctcgtt acagctctga 60
 ggctcggggc agcgctaattg tgctctgccc tgggtggcga agtccagagt caaggatgca 120
 aatgtagaac gcactacatg ggtaaatgcg ataacagcgg tgcatcttca gattgtcagt 180
 gtaccctcac catagggccc gattcccaac ctgtgaactg ctcaaaatta attcctaaat 240
 gttggctgat gaagagagag agccttggga caaaggcagg tcgcagagtt aaaccagcac 300
 aagcacttat tgacaacgat ggaactgtaça atccagagtg tgatactaat ggggtgttta 360
 agggccggca gtgcaacaat actgacacct gctggtgtgt caataccgcc ggggtcagaa 420
 gaaccgacaa aggggacaaa aactggaagt gcccgagct ggtcagaact aactgggtgt 480
 atgttgaat gaaacgcaat aacacagact cagtgaatga tgacgacttg aaaaagcãc 540
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 ag 602

<210> 2083

<211> 425

<212> DNA

<213> *Xenopus* sp.

<400> 2083

gaattcggac tactacaggt gggaaacagc gactctgtt gttagcaga cgccgcggat 60
 attgcaagat gatcatcccg gtcagatgct ttacatgttg gaagattgta ggcaataaat 120
 gggaggctta ccttggcctt ttacaggctg aatatacaga aggtgatgct ctggatgcct 180
 tgggcctgaa aaggctactg tgcgtcgga tgctctcgc tcacgtcgac ttgattgaga 240
 aactgttaaa ctacgccctt ttggagaaat gaggttcccg ttccatcccg tgcaatctag 300
 accaatcaaa tgtttacaag cacaggaagg agaaccctcg gcttcatta taccctacct 360
 gctgaacttc cagaggaaaa atctgtttct aacctgaaa ccatgttgaa cagggcacgc 420
 tcgag 425

<210> 2084

<211> 498

<212> DNA

<213> *Xenopus* sp.

<400> 2084

gaattcggac tactacaggt gccgggagga gatattctta caggagatgg aggagcagaa 60
 agaaaatcgg ccgctcgata cagaggattc ggtggttgag gaggatttgt gcaaaaagct 120
 ttcaagaaac ttgatctcg ttggtgtcaa gcagagggtg cgatttgatg gtcaggagga 180
 caatggaact ctacagtat cctcaaatat tagtgatttc agtgatccag ttataaaga 240
 aattgccatt gctaattggt gtgtcaatag agtgacaaag gatgagctga aggcgaagct 300
 tgtagagcac aaacttgaca ctagagggtg taaagatgtg ctgagaaaga gactgaagaa 360
 ctactacaag aagcagaaat tgacacatgc attgcataag gactcaaaca cagactgcta 420

ttatgactac atctgtgtca ttgacattga agcaacctgt gaagcgggta actctctaga 480
ctaccccat ttctcgag 498

<210> 2085

<211> 306

<212> DNA

<213> *Xenopus* sp.

<400> 2085

gaattcggac tactacaggt gtttatgatg aaaaagtagt ccatcccttg acttaataat 60
tgtttgttcc acttccctgc tcctgtctgc atgtggtgca caggcactgt atgtaactca 120
agctcatcta tcaatctgcc atttatgctg cccctaataca cttttcttct ccttctttta 180
gcaataaaaa ctgaggggat ctccctcag cctgctgcag agctaggtgt ccaaagccct 240
gcaaaagtgc taactcttc cctgccttg ccaaccttg agcctgttc ttctgccccg 300
ctcgag 306

<210> 2086

<211> 385

<212> DNA

<213> *Xenopus* sp.

<400> 2086

gaattcggac tactacaggt gtttcgcttt tctttactgc atggctgttc ttgcatttta 60
tctaggttta atgcacttgt atcgggactc tccaaaattt ccattatgtg acttcttcat 120
tgctgttgcc ttgtctttaa tgtggctagt tagttctca gcttgggcta aagggttgac 180
agatattaaa atttccacca gccctcaaaa tattgtgcaa aatcactgcc cactgaatta 240
caaatgtctg cctggacaag aatcgcccat ggggaagtctg aacatctctg tggcttttgg 300
atttttgaat ctgattctgt gggcaggtaa tgcttggttt gtatacaagg agaccagtct 360
acattcccca ccgcaacaac tcgag 385

<210> 2087

<211> 198

<212> DNA

<213> *Rattus* sp.

<400> 2087

gaattcggcc aaagaggcct agaactctgg actctgggaa aagcattgac catgaggttg 60
accctgttat tggctgccct acttgggtat atctactgtc aagaaacgtt tgtgggagat 120
caagttcttg agatcatccc aagtcataaa gagcaaatga gaactctgtc gcaattggag 180
gctgaagagc atctcgag 198

<210> 2088

<211> 176

<212> DNA

<213> *Rattus* sp.

<400> 2088

gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
gttcaagcc tgaattgttt cctcatcac taggtactgc gtcaacatac ctcgag 176

<210> 2089

<211> 323

<212> DNA

<213> *Rattus* sp.

<400> 2089

gaattcggcc aaagaggcct agcaaaatga agtttgttct gctgctttcc ctcattgggt 60
tctgctgggc tcaatatgac ccacacactg cggatgggag gactgctatt gtccacctgt 120
tcgagtggcg ctgggctgac attgccaagg aatgtgagcg gtacttagca cctaagggat 180

ttggaggggt gcaggtctct ccaccaatg aaaatattat aattaataat ccatcaaggc 240
 cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaaggctt ggaaatgaaa 300
 atgaattcaa aggatggctc gag 323

<210> 2090
 <211> 176
 <212> DNA
 <213> Rattus sp.

<400> 2090
 gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2091
 <211> 176
 <212> DNA
 <213> Rattus sp.

<400> 2091
 gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2092
 <211> 346
 <212> DNA
 <213> Rattus sp.

<400> 2092
 gaaattcggc caaagaggcc tacttggttag attatccaaa catcgtcaaa ttttcatgct 60
 atttatttta tttctttttt tttttttttt ttgccaaaag atgagttgtg tttgtttgaa 120
 atctgagaca ctgtgttcca ttggtgttt ctgttcaaat gcaccccat tgccttgaa 180
 acccttcccc agatgtcaca ctacatgtca ggtccaggag gatgactcgc aagtcctaca 240
 gggttcatta cgaaaacttc aaggttccca gtggaaacct ggaaaccgct agctgatgct 300
 caccaaagtc tcgcccttca cccctgcggg ggcctggcag ctcgag 346

<210> 2093
 <211> 176
 <212> DNA
 <213> Rattus sp.

<400> 2093
 gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2094
 <211> 323
 <212> DNA
 <213> Rattus sp.

<400> 2094
 gaattcggcc aaagaggcct agcaaaatga agtttgttct gctgctttcc ctcattgggt 60
 tctgctgggc tcaatatgac ccacacactg cggatgggag gactgctatt gtccacctgt 120
 tcgagtggcg ctgggctgat attgccaagg aatgtgagcg gtacttagca cctaagggat 180
 ttggaggggt gcaggtctct ccaccaatg aaaatattat aattaataat ccatcaaggc 240
 cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaaggctt ggaaatgaaa 300
 atgaattcaa aggatggctc gag 323

<210> 2095

<211> 176

<212> DNA

<213> Rattus sp.

<400> 2095

gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
gttcaaagcc tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2096

<211> 176

<212> DNA

<213> Rattus sp.

<400> 2096

gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
gttcaaagcc tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2097

<211> 150

<212> DNA

<213> Rattus sp.

<400> 2097

gaattcggcc aaagaggcct accccccaact agaaaaattg ttatgggtat tggcatttat 60
ttattcatca tatacttatt agggcagcta aaaaagtcta atgcctctgt catgtattac 120
cacagaaggc aagcccagca caaactcgag 150

<210> 2098

<211> 323

<212> DNA

<213> Rattus sp.

<400> 2098

gaattcggcc aaagaggcct agcaaaatga agtttgttct gctgctttcc ctcattgggt 60
tctgctgggc tcaatatgac ccacacactg cggatgggag gactgctatt gtccacctgt 120
tcgagtggcg ctgggctgat attgccaagg aatgtgagcg gtacttagca cctaagggat 180
ttggaggggt gcaggctctt ccaccaatg aaaaatttat aattaataat ccatcaaggc 240
cttgggtgga aagatatcaa ccaatcagct acaaaaattg ctcaaggctt ggaaatgaaa 300
atgaattcaa aggatggctc gag 323

<210> 2099

<211> 178

<212> DNA

<213> Rattus sp.

<400> 2099

gaattcggcc aaagaggcct aagcattgac catgaggttg accctgttat tggctgccct 60
acttgggtat atctactgtc aagaacggtt tgtgggagat caagttcttg agatcatccc 120
aagtcataaa gagcaaatga gaactctgct gcaattggag gctgaagagc atctcgag 178

<210> 2100

<211> 344

<212> DNA

<213> Rattus sp.

<400> 2100

gaattcggcc aaagaggcct acttggcaga ttatccaaac atcgtaaat tttcatgcta 60
tttattttat ttcttttttt tttttttttt gccaaaagat gaggttgtgt tgtttgaaat 120

ctgagacact gtgttccaat tgggtgtttct gttcaaaaagc atcctcattg tcctggaaac 180
 ccttccccag atgtcacact acatgtcagg tccaggagga tgactcgcaa gtcctacagg 240
 tttcattacg aaaacttcaa gggtccaggt ggaaacctgg aaaccgctag ctgatgctca 300
 ccaaatgtct gcccttcacc cctgcggggg cctggcagct cgag 344

<210> 2101

<211> 176

<212> DNA

<213> Rattus sp.

<400> 2101

gaattcggcc aaagaggcct attataagag ttgcttttgt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatcac taggtactgc gtcaacatac ctcgag 176

<210> 2102

<211> 330

<212> DNA

<213> Rattus sp.

<400> 2102

gaattcggcc aaagaggcct aaaaatgaag tttgttctgc tgctttccct cattgggttc 60
 tgctgggctc aatatgaccc acacactgcg gatgggagga ctgctattgt ccacctgttc 120
 gagtggcgct gggctgatat tgccaaggaa tgtgagcggc acttagcacc taagggattt 180
 ggagggggtgc aggtctctcc acccaatgaa aatattataa ttaafaatcc atcaaggcct 240
 tgggtgggaaa gatatcaacc aatcagctac aaaatttgc caaggtctgg aaatgaaaat 300
 gaattcaaag acatggtgac gagactcgag 330

<210> 2103

<211> 523

<212> DNA

<213> Rattus sp.

<400> 2103

gaattcggcc aaagaggcct aaacaattct gcaaaaataa tcatacccag cctggcaatt 60
 gtctgtctct cgggtccattg ctccgcccgc gtccacagtc gcttgcaagg gaaggcactg 120
 aatttaccgc ggcagaaca tccctcccag ccggcagttt acaatgctgc gaactaagga 180
 tctcatctgg actttgtttt tcctgggaac tgcagtttcc ctgcaggtag atattgttcc 240
 cagccaagga gaaatcagcg ttggagagtc caaattcttc ctgtgtcaag tggcaggaga 300
 tgccaagat aaggacatct cctggttctc ccccaacggg gagaaactga gcccaacca 360
 gcagcggatc tcagtgggtg ggaacgarga tgactcctct accctcacca tctacaacgc 420
 caacattgat gatgccggca tttacaagtg cgtggtcacc gctgaagacg gcaccagtc 480
 cgaggccact gtcaatgtga agatcttcca gaagacactc gag 523

<210> 2104

<211> 150

<212> DNA

<213> Rattus sp.

<400> 2104

gaattcggcc aaagaggcct accccccact agaaaaattg ttatgggtat tggcatttat 60
 ttattcatca tatacttatt agggcagcta aaaaagtcta atgcctctgt catgtattac 120
 cacagaaggc aagcccagca caaactcgag 150

<210> 2105

<211> 176

<212> DNA

<213> Rattus sp.

<400> 2105

gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatcac taggtactgc gtcaacatac ctcgag 176

<210> 2106

<211> 345

<212> DNA

<213> Rattus sp.

<400> 2106
 gaattcggcc aaagaggcct acttggtaga ttatccaaac atcggtcaaattttcatgcta 60
 tttattttat ttcttttttt tttttttttt tgccaaaaga tgagttgtgt ttgtttgaaa 120
 tctgagacac tgtgttccat ttggtgtttc tgttcaaag catctcatt gtcctggaaa 180
 cccttcccca gatgtcacac tacatgtcag gtccaggagg atgactcgca agtcctacag 240
 gtttcattac gaaaacttca aggttccag tggaaacctg gaaacctgca gctgatgctc 300
 accaaatgct cgccttccac ccctgcgggg gcctggcagc tcgag 345

<210> 2107

<211> 176

<212> DNA

<213> Rattus sp.

<400> 2107
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 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatcac taggtactgc gtcaacatac ctcgag 176

<210> 2108

<211> 176

<212> DNA

<213> Rattus sp.

<400> 2108
 gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatcac taggtactgc gtcaacatac ctcgag 176

<210> 2109

<211> 203

<212> DNA

<213> Rattus sp.

<400> 2109
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 ggttgaccct gttattggct gccctacttg ggtatatcta ctgtcaagaa acgtttgtgg 120
 gagatcaagt tcttgagatc atcccaagtc atgaagagca aattagaact ctgctgcaat 180
 tggaggctga agagcatctc gag 203

<210> 2110

<211> 323

<212> DNA

<213> Rattus sp.

<400> 2110
 gaattcggcc aaagaggcct agcaaatga agtttgttct gctgctttcc ctcattgggt 60
 cctgctgggc tcaatatgac ccacacactg cggatgggag gactgctatt gtccacctgt 120
 tcgagtggcg ctgggctgat attgccaaag aatgtgagcg gtacttagca cctaagggat 180
 ttggaggggg gcaggtctct ccaccaatg aaaatattat aattaataat ccatcaaggc 240
 cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaaggtct ggaaatgaaa 300
 atgaattcaa aggatggctc gag 323

<210> 2111

<211> 308

<212> DNA

<213> Rattus sp.

<400> 2111

gaattcggcc aaagaggcct acctttcttt cctcccttcc tcttcccatg tccctctctc 60
 ctcctcccca cctctcaccc ttctccatcc ctcctccctc ttttcttttg tactttccag 120
 ctggagcagc agcagcagct gggcctgaat caatgattga cttccccacg acctccctt 180
 ctcttttgcc aatgatattc ctttgccctt ccagtcattc ttttaattta tctgtatgg 240
 ttttgcttct ccttctctct cctctctctt tccctcttcc tccccctct cccccaccga 300
 cagtcgag 308

<210> 2112

<211> 203

<212> DNA

<213> Rattus sp.

<400> 2112

gaattcggcc aaagaggcct agctctgaac tctggactct gggaaaagca ttgaccatga 60
 ggttgacctt gttattgctt gccctacttg ggtatatcta ctgtcaagaa acgtttgtgg 120
 gagatcaagt tcttgagatc atcccaagtc atgaagagca aattagaact ctgtgcaat 180
 tggaggctga agagcatctc gag 203

<210> 2113

<211> 402

<212> DNA

<213> Rattus sp.

<400> 2113

gaattcgtcc aaagaggcct acactgacaa cttcaaagca aaatgaagtt cgttctgctg 60
 ctttccctca ttgggttctg ctgggctcaa tatgaccac acactgcgga tgggaggact 120
 gctattgtcc acctgttcga gtggcgctgg gctgatattg ccaaggaatg tgagcggtag 180
 ttagcaccta agggatttgc aggggtgcag gtctctccac ccaatgaaaa tattataatt 240
 aataatccat caaggccttg gtgggaaaga tatcaaccaa tcagctacaa aatttgctca 300
 aggtctggaa atgaaaatga attcaaagac atggtgacga ggtgcaacaa tgttggtgtc 360
 cggatttatg tggatgctgt cattaatcac atgacactcg ag 402

<210> 2114

<211> 545

<212> DNA

<213> Rattus sp.

<400> 2114

gaattcggcc aaagaggcct aggggtcggc agaaggcttc aggtcccttg aacttggggt 60
 tactgggtgac gggcactgcc atgtggatgc cgggggctgg acctggacta tcgggaagag 120
 caggcactgc tggctgctga gtcatggctc tcacctcgct tgcctttgag acaggacctt 180
 gcttcgcaat aggcaggtt ggtcttgacc gtattacgta gtccaggta accttgaact 240
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 cattcacggt cctgcagtc ttccaagact ctcttcaaag gacaattgtg ggcttccaaa 480
 acaatcttag tgcccgctgc ttctccatta ccatagccaa caggttctca cccacaaaac 540
 tcgag 545

<210> 2115

<211> 427

<212> DNA

<213> Rattus sp.

<400> 2115

gaattcggcc aaagaggcct agagcttttc ggtgtatgta ccctggaggt caagattatg 60
 caggatttcc tgggtgtggt ttactccgac tgcatagcac ctacagacac gacctcaaaa 120
 tatatgcctc tgatgaaggc cgggtccaga tgacggcagc tgccttcgca aagggtctct 180
 tggctctaga aggagagctt acccccattc tgggtcagat ggtgaaaagt gcaaatatga 240
 acggcctttt ggacagcgac agtgactctt tgagtagctg tcagcagcgt gtgaaagcga 300
 ggcttcatga gatacttcag aaagacagag attttacagc cgaagactac gagaagctta 360
 ctccatctgg aagcatttct gttatcaaat caatgcatct aattaaaaac ccagtgaaaa 420
 cctcgag 427

<210> 2116

<211> 178

<212> DNA

<213> Rattus sp.

<400> 2116

gaattcggcc aaagaggcct aagcattgac catgaggttg accctgttat tggtgcct 60
 acttgggtat atctactgtc aagaaacgtt tgtgggagat caagttcttg agatcatccc 120
 aagtcataga gagcaaatga gaactctgct gcaattggag gctgaagagc atctcgag 178

<210> 2117

<211> 314

<212> DNA

<213> Rattus sp.

<400> 2117

gaattcggcc aaagaggcct actccacact catcttttaa ttttgaagc ctccagaacac 60
 ctggaccact tctttggaaa actgttttac cagcaacaag tcatccactg cgatcctgtt 120
 gagcatagcc acatctgagt ttccaagtc taaacaggac tgcctctgat ttcccatga 180
 agctgcatta ttgtctgtcc atcttactgg tggtcacttt tgtgccaact gctctggttt 240
 tggaagatgt gactccactg ggaacgaatc agagttcata caatgcatca tttctttcga 300
 gctttacact cgag 314

<210> 2118

<211> 323

<212> DNA

<213> Rattus sp.

<400> 2118

gaattcggcc aaagaggcct agcaaaatga agtttgttct gctgctttcc ctcatgggt 60
 tctgctgggc tcaatatgac ccacacactc cggatgggag gactgctatt gtccacctgt 120
 tcgagtggcg ctgggtgat attgccaagg aatgtgagcg gtacttagca cctaagggat 180
 ttggaggggt gcaggtctct ccacccaatg aaaatattat aattaataat ccatcaaggc 240
 ctgggtggga aagatatcaa ccaatcagct acaaaatttg ctcaaggctt ggaaatgaaa 300
 atgaattcaa aggatggctc gag 323

<210> 2119

<211> 579

<212> DNA

<213> Rattus sp.

<400> 2119

gaattcggcc aaagaggcct agagcaatgg tcaacacctt tctctgcctt ggggctgggc 60
 aaaccaacag tccaggcaaa aggcagggca ctttctggag gaggtgtcag caccaaggca 120
 gatggctgac tccaaagctc tccgtgctct cctgcatggg gcctaaatga tggcatgagc 180
 cggctcctct ggcctatctg ggttccaatc cttggttaga ttagtctgca ggggctgcat 240
 ttaggcaga gctcaccaaa ccaagactta cacttctctc gccctggaa gcacagctac 300
 aaaatcactg gacttcaaac cagaaaaccc agccttgaca cagtacagat gacaaccatc 360
 tggctcactt gaatgtaaag cgacccacac cacacttgca tttgtaggca gggacgctca 420
 cattgctcaa ggcttccttg gccggaatga agcaaacag agctcaaac aagcagagt 480

actccaagcc tgtccatagc caccactat gcttaagtaa gatgtcctcc ctcaaagctg 540
ctgcagtaaa gccatgagca gattcctgtt ctgctcgag 579

<210> 2120

<211> 310

<212> DNA

<213> Rattus sp.

<400> 2120

gaattcggcc aaagaggcct aagcttgggc gcagaacaca ctcaaagttc ccaaaggagc 60
tccacctgtc tatacctcct ctgagctcag tcccacaagg cagaataaaa aaatgaagac 120
cggtttacatc gtggctggat tgtttgtaat gctggtacaa ggcagctggc agcatgcccc 180
tcaagacacg gaggagaacg ccagatcatt ccagcttcc cagacagaac cacttgaaga 240
ccctaatacag ataaacgaag acaaacgcca ttcacagggc acattcacca gtgactacag 300
cgcaactgag 310

<210> 2121

<211> 354

<212> DNA

<213> Rattus sp.

<400> 2121

gaattcggcc aaagaggcct agtggggtag gaactgaagg aaatatagga ccatgcaggg 60
attttatctc aatgagagaa gttctgatta tattaggaat ccaccaaaga ccatcattgt 120
gactggatcc acacagctaa gtctttgctc agtgaacatg gtcaagaaga ggctggaaaa 180
acccaaagca cacagttacc ttcccatggg aggctaagct atcaaaagcg gtgttcagtt 240
atacaacaag caagccaagc caccaaatta caaacagtgg tgttacatat ttctcgtgca 300
atgtgggttt cctgctaata ttgttggtt ttacacttga ttatatcct cgag 354

<210> 2122

<211> 435

<212> DNA

<213> Rattus sp.

<400> 2122

gaattcggcc aaagaggcct ataaaattat taagtatata tccaaatttc aaactcctct 60
ttcccaaac aacgctggcg agcctagcaa gtagcaaaa atctttgtta agaatataga 120
atagcgctca ccatagggtc tgtgttccaa agccacacct cagttcccc actatcagaa 180
taccatacta tgggttctta actagtaag gctaaagaga acctttactt tccactatc 240
ctcagcaacc taggtctttt actgtattca ccaatgcoca ttgtacatca gttttcttc 300
cctccttctt gcctaactgc ctctcttctt tacttctttt tgtttcaaat ctcttctgt 360
ttatttcttt tgtgtctgtg gacattcact gggacgtggc atggcagatg tatggacaca 420
acggggcagc tctgag 435

<210> 2123

<211> 339

<212> DNA

<213> Rattus sp.

<400> 2123

gaattcgcca aagaggccta ccaaagggt ctgctacatc ttaggaagg agagaccctt 60
ggtggcgccc cctttagaag agcagctgcg cagggctggg acattttaat gaaggctctg 120
tattaaagag ttggctcttt ctttcttat ctttctctt atttggaat gtcctctct 180
aatctccctt aatccacccc ctctcttctg gggcagggga ccaggcagcc tggagaggcc 240
aagagaggag ctgcaggatt ggggtgggca ctggcaggag actcccacgt agccctgtgc 300
atgggggtgt tgcataattg caggtaagag ccactcgag 339

<210> 2124

<211> 323

<212> DNA

<213> Rattus sp.

<220>

<221> unsure

<222> (114)

<220>

<221> unsure

<222> (120)

<220>

<221> unsure

<222> (191)

<400> 2124

gaattcggcc aaagaggcct agcaaaatga agtttgttct gctgctttcc ctcattgggt 60
tctgctgggc tcaatatgac ccacacactg cggatgggag gactgctatt gtcnacctgn 120
tcgagtggcg cttggctgat attgccaaagg aatgtgagcg gtacttagca cctaagggat 180
ttggaggggt ncagggtctct ccacccaatg aaaaatttat aattaataat ccatcaaggc 240
cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaaggctt ggaaatgaaa 300
atgaattcaa aggatggctc gag 323

<210> 2125

<211> 320

<212> DNA

<213> Rattus sp.

<400> 2125

gaattcggcc aaagaggcct atgactatag ggaaagtcac atgggcatat acaagtgtca 60
aactcggaaa ctgcacgcca tgaacatgta taatttacc aatgtcaaag aagccatttt 120
tgggtttttg ggggtgggtt tgtgtgtttg tttgtttgct ttttaaaagc tgttgcccag 180
caagtgtgct cagtgggtaa aggtgtttgc tccaaagctt aaagcctggg ctcaatcgcg 240
agaactcatg tggtagaacg ggagagccca ccattacaaa ctgtgctttg acttccatat 300
gtctgcccac aacactcgag 320

<210> 2126

<211> 316

<212> DNA

<213> Rattus sp.

<400> 2126

gaattcggcc aaagaggcct acagccaagg actaactacg accatgagat tggcagtgat 60
ttgcttttgc ctatttggca ttgctctctc cctcccgggt aaagtgactg attctggcag 120
ctcagaggag aagaagcttt acagcctgca cccagatcct atagccacat ggctgggtgcc 180
tgacccatct cagaagcaga atctccttgc gccacagaat gctgtgtcct ctgaagaaaa 240
ggatgacttt aagcaagaaa ctcttccaag caattccaat gaaagccatg accacatgga 300
cgacagtgat gtcgag 316

<210> 2127

<211> 138

<212> DNA

<213> Rattus sp.

<400> 2127

gaattcggcc aaagaggcct acgagtgggt atgggtgatga tgatgggtgt ggtgattatg 60
atgataatga tgggtgatgac cacagtgatt gatctgagag gtgctgactg gtgagaggca 120
ggtctagaat tcaatcgg 138

<210> 2128

<211> 395

<212> DNA

<213> Rattus sp.

<400> 2128

```

gaattcggcc aaagaggcct actgtcgggc aagtgcatt ctagactgag catggttttc 60
tggaacagat gatcttgat gatcaggaat cagaggacct ggaccgtcca tcattgagcc 120
accagtttgc tggagcacag acatgggtgt tctagcactt ccaaggggtt ctagcattcc 180
aggtgatcta catcgggtcaa gaggagtgg tgacatgcta ggacgactaa aacagctcat 240
tctagagcta ctaagtgcta caggaggtgt cagagatcca gaatgattcc ttgttctggt 300
aggagtggca gaacgtgagc gatcagaact acttcagat gcagaccgcc tacggatggc 360
tggaagagat cttgttaaag atcgcttgcc tcgag 395

```

<210> 2129

<211> 323

<212> DNA

<213> Rattus sp.

<400> 2129

```

gaattcggcc aaagaggcct agcaaaatga agttgttct gctgcttcc ctcattgggt 60
tctgctgggc tcaaatgac ccacacactg cggatgggag gactgctatt gtccacctgt 120
tcgagtggcg ctgggctgat attgccaagg aatgtgagcg gtacttagca cctaagggat 180
ttggaggggt gcaggtctct ccaccaatg aaaatattat aattaataat ccatcaaggc 240
cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaaggctt ggaaatgaaa 300
atgaattcaa aggatggctc gag 323

```

<210> 2130

<211> 386

<212> DNA

<213> Rattus sp.

<400> 2130

```

gaattcggcc aaagaggcct aagaaacgcc tgggccttcg gaaaggagt attgattagt 60
acttgcaagt ttaggtgact ttaaggagaa ctaactaatg tatactattg agggaggagg 120
aagagcatta cagagtttcc agcagcagca ggaagcctt ggtagtttg gaaatggatg 180
atagcattaa aataacagaa gcgcctccag gtctctgaag cttagtccc ccagctgaaa 240
gccagaaaag actaagccca ctaagccttt tgatcccttt ggaagcaaag aactttcctt 300
ccctgggggt aagactctcc tcagaagatt tctgtctct gcctatgta caagaggat 360
caaaaccaag acagaagagc ctcgag 386

```

<210> 2131

<211> 202

<212> DNA

<213> Rattus sp.

<400> 2131

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gaattcggcc aaagaggcct acaaaactaaa aaattcttta gccacttct taccgcaagg 60
aaccctcatc tcaactaatt ccataactat catcatcgaa actatcagcc tatttattca 120
accgatagca ctagcagtag gactaacagc aaacattaca gcaggccatc tattaatgca 180
tctaactcga ggagctctcg ag 202

```

<210> 2132

<211> 386

<212> DNA

<213> Rattus sp.

<400> 2132

```

gaattcggcc aaagaggcct aggagaggtg tttctgacat ccagtgttc agagtgggt 60
ggagggtcaa acccagtcac ctcaggatct ttgtgagca gaaggacaca aggagaggcc 120
agtggggcct gactccagg aaattgatac cattaagcat gtttggtaat tggatcgta 180
ttagttttat caaaggtgaa taaagttaat tctgtgattc tgagaatgtt aaataatgat 240

```

tataataaaa ttttaaatcga attagaattc ttgccagaga gggaaagggga agtgaggaaa 300
gccacgggtgc cegtctccga gtgtcatcga ggtcaggggt ggggctcagt cctactcagg 360
agtccttgt tggcaggagc ctccag 386

<210> 2133

<211> 403

<212> DNA

<213> Rattus sp.

<400> 2133

gaattcggcc aaagaggcct agcgcgcgggt cccaccttcg tcgcgcacac tggctaggcg 60
agctcgcagc gctctacgac tctgcggctc ggaactcgga ccgcagggt gaacaccccc 120
actgtgggtat ttataaaaag aaagaagaa agaaagaaga catttccttg cttttctc 180
ttttctctc tttctcgac ggtttctac cgtagtggct agcggagccg gcagccttcc 240
caaggcagcc ctgggtggct tgccatctc catctggctt ataaaagttt gctgagtga 300
gtccagaggg ctgcgcggct cgtccctcgt gctggcgaa gggggtgacg ctgggcagcg 360
gctaaggagc gcgcgcagc ctctggcggt ctttcggctc gag 403

<210> 2134

<211> 343

<212> DNA

<213> Rattus sp.

<400> 2134

gaattcggcc aaagaggcct aaagaaacga atttctcac cagatcggaa ggaagaaaa 60
tccttcaagt agaaggggag ggggtgtgtt gtgttttga ttttttata taaggctcc 120
ttgtataacc ttggttgcc tggaccaca gagatctgcc ggcctctgcc ttacagtgcg 180
gagataaaaa gcacacacca ccatgcacca ctattttggg tgggtgtgggt tacttttgtt 240
ttgttttgtt ttgttttgtt ttgagacgggt ttctctgtgt agccttgggt gtcttggaac 300
ctactctgta gaccaggctg gtcttgaact cagatcctc gag 343

<210> 2135

<211> 150

<212> DNA

<213> Rattus sp.

<400> 2135

gaattcggcc aaagaggcct acccccact agaaaaattg ttatgggtat tggcatttat 60
ttattcatca tatacttatt agggcagcta aaaaagtcta atgcctctgt catgtattac 120
cacagaaggc aagcccagca caaactcgag 150

<210> 2136

<211> 344

<212> DNA

<213> Rattus sp.

<400> 2136

gaattcggcc aaagaggcct acttggtaga ttatccaaac atcgtcaaatt ttcatgcta 60
tttattttat ttcttttttt tttttttttt gccaaaagat gagggtgtgt tgtttgaaat 120
ctgagacact gtgttcatt tgggttttct gttcaaagtc atcctcattg tccttgaaac 180
ccttccccag atgtcacact acatgtcagg tccaggagga tgactcgcaa gtctacagg 240
tttcattacg aaaacttcaa ggttcccagt ggaacctggt aaacctgcag ctgatgetca 300
ccaaatgctc gcccttcacc cctgcggggg cctggcagct cgag 344

<210> 2137

<211> 525

<212> DNA

<213> Rattus sp.

<400> 2137

gaattcggcc aaagaggcct agcctcttgg gccggccaaa gaggcctagg tcgtggggta 60
 agaacagtct gatccttggc cagtgttgaa ggctgggcgg ttttcagct ctataactgt 120
 tttgccttct ctggaaagct cagtcacttc acaggtgtag tttccacca cagcctcatg 180
 ggtatccatt gtcaaaaggc caatgccttt gagcaagtct gagaccgaga tttttgcact 240
 ggtaaagttt tgttctctag tagtgctatt tttatttcca tcatagatga aaatatacga 300
 tttgttcaac ttccacttca caaacatttc atcgggtgctt tgggcttcca cattaaggac 360
 tttgcaaggg atgaccacag tgtcattgca tgacgtgaac tctacagatt tgactttact 420
 aagcaggagt tgagctgaac cgcagcagca ggagcccgag aacagcgccg ccgccaaggg 480
 ccacatctcc gcgcgcgcgg gggtcgcgcg cgcaggtgtc tcgag 525

<210> 2138

<211> 198

<212> DNA

<213> Rattus sp.

<400> 2138

gaattcggcc aaagaggcct agaactctgg actctgggaa aagcattgac catgagggtt 60
 accctgttat tggctgccct acttgggtat atctactgtc aagaaacgtt tgggggagat 120
 caagttcttg agatcatccc aagtcatgaa gagcaaatta gaactctgct gcaattggag 180
 gctgaagagc atctcgag 198

<210> 2139

<211> 311

<212> DNA

<213> Rattus sp.

<400> 2139

gaattcggcc aaagaggcct actgccgaat actgattaca tattccttga aatcaaaactc 60
 ttcatgatag aagcgaagta gtcttaacca aagctctcct agtgattccg tgttcttttc 120
 aagtgaaggt aaacgctttt tcagttcttc tgttttatca aagaaaaagg cattccatcc 180
 atccaccatt ctctgtggaa tctgctttcc atcaaatgac tcttcagaa ctgggataac 240
 tggtggtctt cgttgctgca gaaagtacag caccataagg atataagcat atgaagataa 300
 acttcctcga g 311

<210> 2140

<211> 408

<212> DNA

<213> Rattus sp.

<400> 2140

gaattcggcc aaagaggcct accatcatgg cgtaccgcgg ccaggggccag aaggtgcaga 60
 aggtgatggt gcagcccatc aaccttatct tcagatactt gcaaaataga tctcgaattc 120
 aggtgtggct gtatgaacaa gtgaatatgc ggatagaggg ttgtattatt ggctttgatg 180
 agtacatgaa cctcgtatta gatgatgcag aagaaattca ttctaaaaca aagtcaagaa 240
 aacaactggg tcggatcatg ctcaaaggag ataattatc tctgtctcaa agcgtttcca 300
 actagcagtg gccagcatg ggagaggtt agaaaggggt caggggctgc tggtgactac 360
 atttactcat cctgtttcac ttgtacattc tcattgggggt aactcgag 408

<210> 2141

<211> 429

<212> DNA

<213> Rattus sp.

<400> 2141

gaattcggcc aaagaggcct agaaaagttc tccaattagt ataatgaatg agtattttccc 60
 gtactgagta atatttcac ccccggttag cacaggctaa ggtgaaactg tttcatatgt 120
 ttgatagaat agtctaactt tgattttaaa acgaccaaca ctttggccga attgagtggg 180
 gggaaaagtc ccgagctttt gttgcttctt ggttttctt tcttctgtgg taactttact 240
 gtttaagttc tcttttagcc atgattggca aattgtattt tctttaaaaa tcatgctttg 300
 tgcacatttt caaggaggtt agtgtcactt aatggaggct tacgtgtttt tatgaattgg 360

ttacacagga cagaagccca acactaaca agacagggat aaaattgtct cctgggtgtgc 420
cgtctcgag 429

<210> 2142

<211> 524

<212> DNA

<213> Rattus sp.

<400> 2142

gaattcggcc aaagaggcct acagctgttc agaaaagaag aacatggaaa aactgtcaac 60
agtctctctt aatgagcaca cttgaaattt gaatgtcaga atgaacaata ataataacta 120
ttttaaccac tgtctccata ctcataaaag ataaaagaaa tggaaatttc atggttaagt 180
gagtatttgc ctggtctcaa agtgtcttct cacagaatat ttactgatga cacaggggaa 240
aagagtagct tcatggtact agatgctaga ggacgtcact tgcacagatg atcagagtaa 300
acactggtaa tggatggatc aggcctacac catctggtag agcagagctc agcatggctt 360
acatgctggt cctgccaaag gtgcgtgacc tggactgagc tgtgaggaag caccctctac 420
agagcagctg agctggaagc tctcacggtc atcaacatcc aggggaagact tagggacttt 480
tgaaactgat gggctctttt aaaaccccca tggcagcact cgag 524

<210> 2143

<211> 553

<212> DNA

<213> Rattus sp.

<400> 2143

gaattcggcc aaagaggcct acgtactctt cttgaccag aaaacccac gaaatcatgc 60
aagtcaagag gctcaaacct tctgtgtcac ttaagaaca cccgggaac tgcacaggcc 120
atcaagggtt tgcataatcc caaagccacc aagtatctga aggatgtcac ttaagaag 180
cagtgtgtgc cattccggcg gtataatggt ggagttggtt ggtgcgcca ggccaacaa 240
tggggctgga cacagggacg gtggccaaa aagagtgtg aatttttgc gcacatgctt 300
aaaaatgcag agagtaatgc tgaacttaag ggtttggatg tagactctct ggtcattgaa 360
cacatccagg tgaacaaggc tcctaagatg cgcagacgga cctacagagc tcacggccgg 420
attaacccat acatgagctc cccctgccac atcgagatga tcctcactga gaaggacag 480
attgttccaa agccagaaga ggaggttgca cagaagaaa agatatccca gaagaaattg 540
aagaaagctc gag 553

<210> 2144

<211> 454

<212> DNA

<213> Rattus sp.

<400> 2144

gaattcggcc aaagaggcct agagggaagca gacacagtat cagtgtgtgt gaggggggag 60
accttgccca tctctgaca gtcagtttac cctccaagct cttgagttca aatcagagt 120
ccacactggg gtaccaccca ggaatgcttt agtgctgtgt ggcaaggggc aaggttgagg 180
gaagggtttg aacatttgag aatggttaat aaaattgagc cgattgatgg tgggagagac 240
ggcgtaattg ttaagaaaga gtatgtacag ctgccaaagga cccagtttt gtttcagca 300
acctaaattg tttgtacctt agaactgtct gtaacttggg cagctcataa atgcctgtaa 360
ctccagctc tgcactctaa atgtactcta agttacatgc agatacacac atgtagttaa 420
aaataataaa aatctgaaaa caaaggagct cgag 454

<210> 2145

<211> 314

<212> DNA

<213> Rattus sp.

<400> 2145

gaattcggcc aaagaggcct actccacact catcttttaa ttttgaaagc ctcaaacac 60
ctggaccact tctttgaaa actgttctac cagcaacaag tcatccactg cgatcctgtt 120
gagcatagcc acatctgagt tttccaagtc taaacaggac tgctctgat tttccatga 180

agctgcatta ttgtctgtcc atcttactgg tggtcacttt tgtgccaact gctctggttt 240
 tggagatgt gactccactg ggaacgaatc agagttcata caatgcatca tttctttcga 300
 gctttacact cgag 314

<210> 2146

<211> 473

<212> DNA

<213> Rattus sp.

<400> 2146

gaattcgcc aaagaggcct aaggacgagg atataaatgc tatagaaatg gaagaagaca 60
 aaagagattt gatatccga gagatcagca agttcagaga cacacacaag aaactggaag 120
 aagagaaagg caaaaaagaa aaagaaagac aggaattga gaaagaacgg gagagagaac 180
 gggagagaga gagagaacgg gagagagaac gggagcgtga aagagagaaa gacaagaaaa 240
 gagacagaga agaggatgaa gaagatgcat atgaacgaag aaaacttgaa agaaaactgc 300
 gagagaaaga ggctgcgtat caagagcggc ttaagaattg ggaaatcaga gaacgaaga 360
 aaactagga atatgagaag gaggcggaaa gagaagaaga aagaagaaga gaaatggcta 420
 aagaggctaa acgattaaaa gaattcctag aagattatga cgatgacctc gag 473

<210> 2147

<211> 104

<212> DNA

<213> Rattus sp.

<220>

<221> unsure

<222> (42)

<400> 2147

gaattcgcc aaagaggcct agtgggtgg tagtgctagg tnggctaagc ttgctaatag 60
 tcatcatgtt gctatcaatg gaaagattat ttgtaatcct cgag 104

<210> 2148

<211> 334

<212> DNA

<213> Rattus sp.

<400> 2148

gaattcgcc aaagaggcct aaagaggcgc tgaagaagaa ctgccacac attgttgtgg 60
 ggactcctgg ccgaattcta gccctggccc gaaataagag cctgaacctc aaacacatta 120
 aacactttat cttggacgaa tgtgacaaga tgcttgaaca gctcgacatg cgtcgggatg 180
 tccaggaaat ttttcgcatg acccccatg agaagcaggt catgatgttc agtgctacct 240
 tgagcaaaga gatccgcca gtgtgccga agttcatgca agatgtaaat accttctacc 300
 ttctctcct cactccccg ccgcgatgct cgag 334

<210> 2149

<211> 489

<212> DNA

<213> Rattus sp.

<220>

<221> unsure

<222> (106)

<220>

<221> unsure

<222> (130)

<220>

<221> unsure

<222> (164)

<220>

<221> unsure

<222> (241)

<220>

<221> unsure

<222> (273)

<220>

<221> unsure

<222> (364)

<400> 2149

gaattcggcc aaagaggcct acagtcccg gttataccat ttataaacat gcagatgtag 60
 actattaaag attaatgcgt ttcaggattg gtgtggcatt ccgttngtct catgccgaaa 120
 tcaattctgn ttttcattag tcaatgacaa ccccatcat ccantgtggg agagaaatca 180
 aaggtgcatg tgtgtgaatg agagtaactg atgaaactga ttagtaccag acttaacggc 240
 nataatcaat caacacatca cagttagtcag ctncagctta gcaggtgaca gggaagtga 300
 aggaacactc cttctgtatc agtgactcgc ttcgttttag acactcatac ggaaaagttt 360
 caanacactt cattctctatg cactactcat ttagccacca ttccccaaaa tggagcaaaa 420
 cggattctga cacttcttc ttctgggctt caattagctc acaaaaagctc tataccctca 480
 agtctcag 489

<210> 2150

<211> 563

<212> DNA

<213> Rattus sp.

<400> 2150

gaattcggcc aaagaggcct acttctgagg attctgtggc tcttcccttg ggagagggag 60
 agaacatctt ggagagctta ctccaagagc taaggcagag agagggttaga gcccctatct 120
 tgaggaggca tcacatcagg cagcaacaac ttgttgaaa gctggatgaa ctggtcagta 180
 gcaggaaatg gaggggagca ctgggttagc ctcttagaaa ggtcaaccgc ttgaggtga 240
 actcatggaa tacttggtat tccaagcag agtgggtgg ggcccaagc cctctcct 300
 gtgtacctcc ttaaggaata aaaggcattc agggagtcc caggcaaggg gtgccagaat 360
 tagtccttaa ggcacagctg ggggcagaca aggcgcaag gcacaattgg tagggggaca 420
 agggatagcc tccaagctga gtgccagggt cacaagagga tgcaggaccg cccacgcttt 480
 atcgggtgtg ggttgagcac cggccggaca gcctcggcaa acacctcctt gacaccgtct 540
 tgctgcagcg ctgagcactc gag 563

<210> 2151

<211> 523

<212> DNA

<213> Rattus sp.

<400> 2151

gaattcggcc aaagaggcct aaacaattct gcaaaaataa tcatacccag cctggcaatt 60
 gtctgtcctt cgggtccattg ctccgcgcgc gtccacagtc gcttgcaagg gaaggcactg 120
 aatttacgcg gccagaaca tccctcccag cgggcagttt acaatgtgc gaactaagga 180
 tctcatctgg actttgtttt tccctgggaa tgcagtttcc ctgcaggtag atattgttcc 240
 cagccaagga gaaatcagcg ttggagagtc caaattcttc ctgtgtcaag tggcaggaga 300
 tgccaaagat aaggacatct cctggttctc ccccaacggg gagaactga gcccaaacca 360
 gcagcggatc tcagtgtgtt ggaacgatga tgactcctct accctacca tctacaacgc 420
 caacattgat gatgcggca tttacaagtg cgtggtcacc gctgaagacg gcacccagtc 480
 cgaggccact gtcaatgtga agatcttcca gaagacactc gag 523

<210> 2152

<211> 295

<212> DNA

<213> Rattus sp.

<400> 2152

gaattcggcc aaagaggcct atgcgtggga agtcttcaca ggatgacaaa ttgggggacc 60
caagaggggga tcccaccgaa gacagtaggg aagagacaaa acaagatgga gggccacact 120
aggcatggga ggccaggag gtgcctgcat cagggtgacc tatgatggg agaactgcaa 180
atctggggac acagaggatg gtcagcaaat gccctgaaa acacccatcc cagaggcat 240
attaacactg ggtggatgtc cagtcaaatg ggcaggtaat ttagggtgcc tcgag 295

<210> 2153

<211> 460

<212> DNA

<213> Rattus sp.

<400> 2153

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tcctcagcct gtaggacagc aggccataa tagccacca gtgactcaga catcagtagg 120
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24

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24205

A. CLASSIFICATION OF SUBJECT MATTER																				
IPC(7) : C07K 14/435; C12N 15/12 US CL : 530/350; 536/23.5 According to International Patent Classification (IPC) or to both national classification and IPC																				
B. FIELDS SEARCHED																				
Minimum documentation searched (classification system followed by classification symbols) U.S. : 530/350; 536/23.5																				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched																				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EMBL5, Genbank, USPAT issued, EMBLest58, Genbankest111 search terms: sequences corresponding to SEQ ID NO: 48, 79, 267, 531, 724, 802, 993, 1192, 1333, and 1416																				
C. DOCUMENTS CONSIDERED TO BE RELEVANT																				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim N																		
X	WO 98/42738 A1 (HUMAN GENOME SCIENCES, INC.) 01 October 1998, pages 207-208, positions 402-730 of SEQ ID NO: 54 relevant to positions 21-350 of instant SEQ ID NO: 993.	4, 8																		
X	Database Genbank on STN, National Center for Biotechnology Information, (Bethesda, MD), Accession number C06368, TAKEDA, J., 'Direct Submission,' 11 October 1996, positions 16-372 relevant to positions 29-385 of instant SEQ ID NO: 1416.	4, 8																		
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA491109, NCI-CGAP, 'National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index,' 15 August 1997, positions 1-136 relevant to positions 159-24 of instant SEQ ID NO: 1333.	4, 8																		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																				
<table border="0"> <tr> <td>* Special categories of cited documents:</td> <td>"T"</td> <td>later document published after the international filing date or prior date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"X"</td> <td>document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"E" earlier document published on or after the international filing date</td> <td>"Y"</td> <td>document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"I" document which may throw doubts on priority claim(s) and which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"A"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td></td> <td></td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>			* Special categories of cited documents:	"T"	later document published after the international filing date or prior date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"E" earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document combined with one or more other such documents, such combination being obvious to a person skilled in the art	"I" document which may throw doubts on priority claim(s) and which is cited to establish the publication date of another citation or other special reason (as specified)	"A"	document member of the same patent family	"O" document referring to an oral disclosure, use, exhibition or other means			"P" document published prior to the international filing date but later than the priority date claimed		
* Special categories of cited documents:	"T"	later document published after the international filing date or prior date and not in conflict with the application but cited to understand the principle or theory underlying the invention																		
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone																		
"E" earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document combined with one or more other such documents, such combination being obvious to a person skilled in the art																		
"I" document which may throw doubts on priority claim(s) and which is cited to establish the publication date of another citation or other special reason (as specified)	"A"	document member of the same patent family																		
"O" document referring to an oral disclosure, use, exhibition or other means																				
"P" document published prior to the international filing date but later than the priority date claimed																				
Date of the actual completion of the international search 11 FEBRUARY 2000		Date of mailing of the international search report 29 FEB 2000																		
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer JOHN S. BRUSCA Telephone No. (703) 308-0196																		

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24205

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim 1
X	<p>Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD) Accession Number AA442056, HILLIER et al, 'WashU-Merck EST Project 1997,' 02 June 1997, positions 60-226 relevant to positions 21-187 of instant SEQ ID NO: 1192.</p>	4, 8

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24205

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-8

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24205

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack Unity of Invention because they are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for more than one species to be searched, the appropriate additional search fees must be paid. The species are as follows:

The nucleic acids of SEQ ID NO: 1-2159 and the corresponding polypeptides encoded by the nucleic acids of SEQ ID NO: 1-2159.

The claims are deemed to correspond to the species listed above in the following manner:

All claims are drawn to the species indicated above.

The following claims are generic: 1-8

The species listed above do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Each species is drawn to a different nucleic acid or corresponding encoded polypeptide. There is no disclosed relationship between the sequences of each individual species.

Restriction to a single species has been waived sua sponte and the Applicants are permitted to have ten species examined without payment of additional fees. The Applicants representative Suzanne Sprunger elected telephonically on 01 February 2000 to have the sequences corresponding to SEQ ID NOS: 48, 79, 267, 531, 724, 802, 993, 1192, 1333, and 1416 searched.